

EDUCATION THAT WORKS  
**ForsythTech**  
COMMUNITY COLLEGE

2005 - 2006 Catalog







# Forsyth Technical Community College 2005 - 2006 Catalog

Forsyth Technical Community College provides this catalog about the college and its programs for students and other interested people. This catalog supersedes all previous catalogs and information about programs, fees and regulations contained in earlier issues. The provisions of this publication are not to be regarded as an irrevocable contract between the student and Forsyth Technical Community College. The college reserves the right to make changes in the regulations, courses, fees and other matters of policy and procedures when deemed necessary. Every effort will be made to minimize the inconvenience these changes might create for students.

## Campus Locations

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(All mail should be sent to the Main Campus address.)

### **Main Campus**

2100 Silas Creek Parkway  
Winston-Salem, N.C. 27103-5197  
(336) 723-0371

### **4<sup>th</sup> Street Small Business Center**

Chamber Building  
601 West 4<sup>th</sup> Street  
Winston-Salem, N.C.  
(336) 631-1320

### **5<sup>th</sup> Street Library Center**

Forsyth County Public Library  
660 West 5<sup>th</sup> Street  
Winston-Salem, N.C.  
(336) 631-1325

### **Forsyth Tech Hispanic Center**

Forsyth County Public Library  
660 West 5<sup>th</sup> Street  
Winston-Salem, N.C.  
(336) 631-1325, (336) 631-1326  
*Se habla español.*

### **Grady P. Swisher Center**

1251 Dudley Products Drive  
Kernersville, N.C.  
(336) 734-7903

### **Stokes County Center**

1012 Main Street  
Danbury, N.C.  
(336) 593-2482

### **West Campus**

1300 Bolton Street  
Winston-Salem, N.C.  
(336) 761-1002

### **Mazie S. Woodruff Center**

4905 Lansing Drive  
Winston-Salem, N.C.  
(336) 734-7950

# Academic Calendar 2005-2006

## FALL SEMESTER, 2005

Tuesday & Wednesday, August 16 & 17	Registration
Friday & Saturday, August 19 & 20	Registration
Monday, August 22	First Day of Classes
Monday, September 5	Labor Day Holiday
Monday & Tuesday, October 10 & 11	Fall Break
Wednesday, October 19	Registration, Second Eight-Week Session
Thursday & Friday November 24 & 25	Thanksgiving Holidays
Saturday, November 26	No Class
Monday, December 19	Last Day of Classes

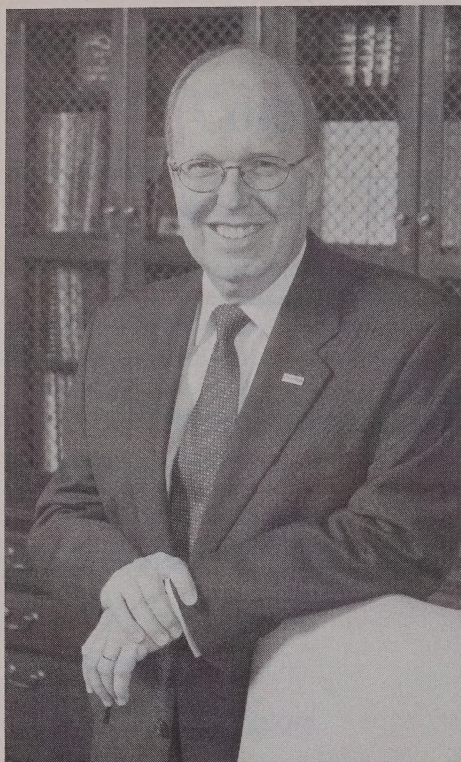
## SPRING SEMESTER, 2006

Saturday, January 7	Registration
Monday & Tuesday, January 9 & 10	Registration
Wednesday, January 11	First Day of Classes
Monday, January 16	Martin Luther King Jr. Holiday
Wednesday, March 8	Registration, Second Eight-Week Session
Wednesday & Thursday, April 12 & 13	Spring Break
Friday, April 12	Easter Holiday
Monday, May 8	Last Day of Classes
Thursday, May 11	Commencement

## SUMMER TERM, 2006

Monday, May 15	Registration
Tuesday, May 16	First Day of Classes
Monday, May 29	Memorial Day Holiday
Tuesday, July 4	Independence Day Holiday
Wednesday July 26	Last Day of Classes

Dates are subject to change without notice.



Gary M. Green

# MESSAGE FROM THE PRESIDENT

Welcome to Forsyth Technical Community College! Your community college is here to offer you a broad range of transfer and career programs that will help you to develop your talents and skills.

We recognized early on that for our graduates to be competitive in society, they must have a solid educational foundation. We built that foundation with strong academics, the best technology possible and the flexibility to develop offerings that meet the needs of the business community today.

Forsyth Tech is committed first and foremost to student success. At any of the college's eight locations, you will find a learner-centered environment with quality instruction, valuable support services and a student-friendly atmosphere. You will find Forsyth Tech to be one of the most technologically sophisticated colleges in the Southeast. We work hard to ensure that our students are well prepared for an increasingly high-tech economy.

In this catalog, you will find information on such areas as admissions, student support services, academic programs of study and business and industry training programs.

We hope that you will meet with our faculty, staff and students and learn firsthand why more than 25,000 students choose Forsyth Tech for credit and noncredit courses each year. I encourage you to talk with us if you have specific questions, either via the Internet, by telephone or in person.

Best wishes for your future success,

Gary M. Green, Ed.D.  
President

# Foreword

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## Mission

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Forsyth Technical Community College is a comprehensive community college providing technical, transfer, adult basic education, corporate and continuing education programs, and support services that are innovative, flexible and responsive to student and community needs. The college offers lifelong learning opportunities and support for diverse learners through both traditional and alternative delivery systems. The college also supports economic growth and opportunity through work force development and community development through partnerships with public and private sectors. Graduates of Forsyth Tech are technically skilled, regionally and globally oriented, and prepared for lifelong learning and full civic participation.

## Statement of Values

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The community of students, faculty and staff of Forsyth Technical Community College is committed to these values:

We value our students, hold high expectations of them and are ceaselessly committed to helping them meet their goals.

We are a learner-centered college providing a variety of quality learning opportunities tailored to student and community needs.

We recognize the impact of ongoing technological change on the educational process and on the lives of our students and embrace this change in our college community.

We are committed to building the community we serve to make it a better place to live.

We value a work environment characterized by mutual respect and demand of ourselves the highest competence, trust and integrity.

## Equal Opportunity Policy

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Forsyth Technical Community College is committed to the principle of equal opportunity. It is an Affirmative Action, Equal Opportunity, ADA, Section 504 institution and does not discriminate on the basis of race, sex, color, age, religion, national origin, disability or political affiliation with regard to its students, employees or applicants for admission or employment.

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# General Information

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## Governance

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Forsyth Technical Community College is one of 59 institutions operating in the North Carolina Community College System, a statewide organization of public, two-year and post-secondary educational institutions. The statutes of the state of North Carolina provide for the organization and administration of a community college system under the direction of the state board of community colleges. This 20-member board has full authority to adopt all policies, regulations and standards it deems necessary for the operation of the system. The governor and the General Assembly appoint members of the state board. The state board has three major functions: equitable distribution of funds and fiscal accountability, establishing and maintaining state priorities, and educational program approval and accountability.

Forsyth Technical Community College is governed by a 12-member board of trustees - four appointed by the governor of North Carolina, four appointed by the Winston-Salem/Forsyth County Board of Education and four appointed by the Forsyth County Board of Commissioners. The Student Government Association president serves as a nonvoting member. Trustees are appointed to four-year terms and set local policy for the college.

## Accreditation

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Forsyth Technical Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4907; Telephone number (404) 679-4501) to award associate's degrees, diplomas and certificates.

The college is a member in good standing of the American Association of Community Colleges.

## Specialized Program Accrediting and Approval Agencies

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- Commission on Accreditation of Allied Health Education Programs (CAAHEP)
- Joint Review Committee on Educational Programs in Diagnostic Medical Sonography (JRCEDMS)
- Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT)
- Joint Review Committee on Education in Radiologic Technology (JRCERT) (20 North Wacker Drive, Suite 900, Chicago, IL 60606-2901; (312) 704-5300; mail@jrcert.org)
- National Automotive Technicians Education Foundation, Inc. (NATEF)
- North Carolina Board of Nursing
- The Electronic Engineering Technology is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET) (111 Market Place, Suite 1050, Baltimore, MD 21202)
- North Carolina Board of Massage and Bodywork Therapy
- The Forsyth Technical Community College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). Commission on Accreditation of Allied Health Education Programs, 35 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208, (312) 553-9355.

## North Carolina Community College Performance Measures

Based on 2002-2003 Data	NCCCS benchmark	Forsyth Tech 2002-03 Data Reported in 2004	02-03 data	System Average
Progress of Basic Skills Students *	75%	82%	M	79%
Passing Rates on Licensure Certification Exams *	Aggregate passing rate of 80% / no exam below 70%	Aggregate passing rate = 86% 1 exam less than 70%		86%
Goal Completion for Completers *	95%	100%	M	99%
Employment Rate of Graduates * (adjusted for local unemployment rate)	95%	99.05 %	M	99.47%
Performance of College Transfer UNC Students (at the University) *	82.9% will have a GPA of 2.0 or better equivalent to the performance of Native Sophomores and Juniors	79 % with 24 or more hrs. 90.6 % with AA or AS degree 81.8 % total with 2.0 or better. (includes data from private colleges and universities)	SI	85.1%
Passing Rates in Developmental Courses * (6th chosen by the college)	70%	90%	M	80%
Success Rate of Developmental Students in Subsequent College Level Courses	Developmental Students perform as well as or better than non-developmental students at a statistically significant level.	89% passed (previous developmental students) 94% passed (non-developmental students)		Dev: 86% Non Dev: 88%
Student Satisfaction of Completers & Non-Completers	90%	93%	M	97%
Curriculum Student Retention & Graduation	60%	71%	M	64%
Employer Satisfaction	85%	94 %	M	94%
Business & Industry Satisfaction with Services Provided	90%	100 %	M	100%
Program Enrollment	No programs with 3-year average annual enrollment of less than 10	1 with less than 10		NA
Total Standards Met or Significant Improvement			9	
Total Performance Funding Standards Met or Significant Improvement			5	

*Reported in 2004*

\* Standard required for accountability and performance funding by the state

6th standard picked by Forsyth Tech to be included for performance funding

M = Met Standard SI = Significant Improvement

S = Superior performance funding

Data Source: 2004 Critical Success Factors for the NCCCS Chart prepared by Research and Assessment Office June 2004

## History

For more than 44 years, Forsyth Technical Community College ideals have remained the same: to provide quality education and training for the citizens of North Carolina. Forsyth Tech's first classes began in the fall of 1960. Automotive mechanics, machine shop, electronics and practical nursing were among the first course offerings at the new Winston-Salem/Forsyth County Industrial Education Center, Forsyth Tech's first name.

Nineteen sixty-three witnessed the establishment of the North Carolina Department of Community Colleges and, with that, the Winston-Salem/Forsyth County Industrial Education Center passed to the new Community College System. In 1964 came a new name--Forsyth Technical Institute, and commitment to the community grew steadily with the addition of the General Adult Enrichment Courses in 1964-65. Adult Basic Education began at the Institute in the summer of 1965.

The 1970's brought more change and expansion for Forsyth Technical Institute. The allied health program was created in the fall and winter of 1971-72, offering courses in three areas: nuclear medicine, radiological technology and respiratory therapy. A police science program, today called the criminal justice program, was added in 1971. And in the fall of 1972, a two-year nursing degree program was added. In 1974 the College Foundation was created to work with Alumni to raise funds for buildings, programs and scholarships.

In the 1980's, expansion led to the acquisition of the Dalton Junior High School site, which became the Institute's West Campus site in Winston-Salem and ground was broken for a technology building, Hauser Hall, on the main campus site. Nineteen eighty-five saw the first of two more name changes for Forsyth Technical Institute, with the name changing to Forsyth Technical College, and then, in 1987, to its current name, Forsyth Technical Community College. In 1989, the College Transfer Program began, which allowed the college to serve an even wider portion of the community.

As the college entered the 1990's, new buildings were added. Bob Greene Hall, with classrooms and laboratories, and the Learning Center were dedicated in 1991. The Allman Center, in 1992, provided both classroom and administrative space. In 1996 the Corporate and Continuing Education Division added two training sites in downtown Winston-Salem to better serve the business and industry sectors. In 1998 two new off-campus centers were added: the Mazie S. Woodruff Center in Northeast Winston-Salem and the Grady P. Swisher Center in Kernersville.

Forsyth Tech continues to look at training needs for the future and is currently a regional Cisco training academy. With the addition of the Thomas H. Davis iTEC (information technology) Center, Forsyth Tech is providing a broad spectrum of technology training to the Northwest Piedmont, utilizing traditional classroom and online courses to provide diverse technology training.

## **Forsyth Tech Foundation**

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The Forsyth Tech Foundation was established in 1974 to provide additional financial support for the college through private donations. Re-activated in 1997, the foundation supports student scholarships, new technology and faculty and staff professional development.

Gifts to the Forsyth Tech Foundation are deductible on federal and state income tax reports, both individual and corporate, up to applicable laws. All gifts, large or small, are appreciated and may be designated for specific programs and projects.

Since 1997, the Forsyth Tech Foundation has added the following:

Eleven endowed scholarships:

- Terry Alexander Memorial Scholarship from the Clemmons Rotary
- Don Angell Nursing Scholarship
- John P. Arrowood Sr. Scholarship
- Branner Dixson Baldwin Scholarship in Practical Nursing
- Mary B. Lauerma Nursing Scholarship
- Lucent Technologies Pioneers Scholarships (2)
- Catherine Kiser Marshall Scholarship in Nursing
- Steven R. Moser Paralegal Scholarship
- Wachovia General Scholarship
- Hilda R. and William H. Moser Scholarship

Four endowed programs:

- Thomas H. Davis I/TEC Center
- William Henry Moser Family Paralegal Program
- James A. Rousseau II Minority Male Mentoring Program
- Shugart Women's Center at Forsyth Tech

One endowed faculty award:

- C. David Kepple Memorial Faculty Award

## **Alumni Association**

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The Forsyth Tech Alumni Association begins with...you! The Forsyth Tech Alumni Association was formed in 1996. The board of directors established policies and the following mission statement: "to support and advance the growth and development of the college; to promote the personal, educational and professional interests of alumni; and to encourage a spirit of shared interests, fellowship and active involvement among alumni, the community and the college."

The Forsyth Tech Alumni Association continues that lifelong connection between its graduates and the college.

If you are interested in becoming an active member of the association, please contact the Alumni Relations Office at (336)734-7307.

## **Advisory Committees**

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Each program of study has an advisory committee composed of representatives of local businesses, industries, and educational and community organizations. The advisory committees provide contact between Forsyth Tech and the community to maintain current and relevant programs of instruction to meet the needs of the community.

# Programs of Study

- Key** ♦ Day and evening program    ● Begins fall semester  
 ● Evening only program    ● Begins spring semester  
 ★ Consortium program    ● Last half of summer

## Associate Degree Programs Arts and Sciences

### Associate in Arts ♦

- Pre-Major Business Administration ♦
- Pre-Major Criminal Justice ♦
- Pre-Major Elementary Education
- Education and Special Education
- Pre-Major Elementary Education ♦
- Pre-Major Middle Grades Education and Special Education ♦
- Pre-Major English ♦
- Pre-Major History ♦
- Pre-Major Nursing ♦
- Pre-Major Physical Education ♦
- Pre-Major Psychology ♦
- Pre-Major Social Work ♦
- Pre-Major Sociology ♦

### Associate in Science ♦

- Pre-Major Biology and Biology Education ♦
- Pre-Major Chemistry and Chemistry Education ♦
- Pre-Major Engineering ♦
- Pre-Major Mathematics ♦
- Pre-Major Mathematics Education

- Biotechnology ♦
- Criminal Justice Technology ♦
- Criminal Justice Technology/Latent Evidence ♦
- Early Childhood Education ♦
- Early Childhood Education/Special Education ♦
- Early Childhood Education/Teacher Associate ♦
- Emergency Medical Science
- Emergency Medical Science/Bridging Program
- Fire Protection Technology ♦
- General Occupational Technology ♦
- Human Services Technology
- Nanotechnology

### Business Information Technologies

- Accounting ♦
- Business Administration ♦
- Business Administration/Banking and Finance ♦
- Business Administration/Electronic Commerce ♦
- Business Administration/International Business ♦
- Business Administration/Logistics Management ♦
- Computer Programming ♦
- Global Logistics Technology ♦
- Health Information Technology ★
- High Performance Computing
- Information Systems ♦
- Information Systems/Network Administration and Support ♦
- Information Systems Security ♦
- Internet Technologies ♦
- Medical Assisting ●
- Medical Office Administration
- Networking Technology ♦
- Office Systems Technology ♦
- Paralegal Technology ♦

### Engineering Technologies

- Architectural Technology
- Automation Engineering Technology
- Automotive Systems Technology ♦
- Automotive Systems Technology/Race Car Performance
- Computer Engineering Technology ♦
- Electronics Engineering Technology ♦
- Film and Video Production Technology ★
- Graphic Arts and Imaging Technology
- Horticulture Technology ♦
- Industrial Systems Technology
- Machining Technology/Tool, Die and Mold Making ♦
- Mechanical Engineering Technology/Drafting and Design

### Health Technologies

- Associate Degree Nursing ●●
- Dental Hygiene
- Interventional Cardiac and Vascular Technology
- Medical Laboratory Technology ★●
- Medical Sonography ●
- Nuclear Medicine Technology ●
- Physical Therapist Assistant ★●
- Radiation Therapy Technology ●
- Radiation Therapy Technology-Advanced Placement ●
- Radiography ●
- Respiratory Therapy ●

## Diploma Programs

### Arts and Sciences

- General Occupational Technology ♦

### Business Information Technologies

- Accounting ♦
- Computer Programming ♦
- Information Systems ♦
- Information Systems-Desktop Publishing ♦
- Information Systems/Network Administration and Support - Microsoft Certified Systems Engineer ♦
- Information Systems/Network Administration and Support-Secure Administration ♦
- Medical Transcription ●
- Networking Technology-Advanced Cisco ♦
- Networking Technology-Networking Security ♦
- Office Systems Technology ♦
- Real Estate ●

### Engineering Technologies

- Air Conditioning, Heating and Refrigeration Technology ♦●
- Autobody Repair ●
- Automotive Systems Technology ♦
- Carpentry ●
- Electrical/Electronics Technology ●
- Graphic Arts and Imaging Technology ●
- Heavy Equipment and Transport Technology ●
- Machining Technology ♦ ●
- Plumbing ●
- Welding Technology ♦

### Health Technologies

- Cardiovascular Sonography/Adult Echocardiography ●
- Computed Tomography & Magnetic Resonance Imaging Technology
- Dental Assisting ●
- Medical Sonography ●
- Practical Nursing ●
- Therapeutic Massage ♦

## Certificate Programs

### Arts and Sciences

Basic Law Enforcement Training  
Criminal Justice  
Early Childhood Education-Administration ♦  
Early Childhood Education-Early Childhood ♦  
Early Childhood Education-Early Literacy ♦  
Early Childhood Education-School-Age ♦  
Early Childhood Education-Special Education ♦  
Human Services Technology-Domestic Violence Intervention  
Human Services Technology-Social Services

### Business Information Technologies

Business Administration-Customer Service ♦  
Business Administration-International Business ♦  
Computer Programming ♦  
Computer Programming-COBOL ♦  
Information Systems ♦  
Information Systems-Helpdesk ♦  
Information Systems-Oracle  
Information Systems-PC Literacy  
Information Systems/Network Administration and Support-Linux Administration ♦  
Information Systems/Network Administration and Support-Microsoft Certified Systems Administration ♦  
Information Systems/Network Administration and Support-Desktop Support ♦  
Information Systems Security  
Internet Technologies ♦  
Medical Office Administration-Outpatient Coding  
Networking Technology-Cisco Networking Associate ♦  
Networking Technology-Cisco Professional ♦  
Networking Technology-Networking Technician ♦  
Networking Technology-Wireless Technician ♦  
Office Systems Technology ♦  
Office Systems Technology-Front Office/Information Specialist ♦  
Office Systems Technology-Microsoft Office Specialist ♦  
Paralegal Technology-Business Practice  
Paralegal Technology-Family Law  
Paralegal Technology-Litigation  
Paralegal Technology-Personal Injury  
Paralegal Technology-Real Property  
Paralegal Technology-Wills and Estate Administration  
Real Estate ♦  
Real Estate Appraisal ♦♦

### Engineering Technologies

Architectural Technology-CAD/Digital Imaging ♦  
Autobody Repair-Non-Structural Damage  
Autobody Repair-Painting and Finishing  
Autobody Repair-Structural Damage  
Autobody Repair ♦  
Carpentry-Framing  
Electrical/Electronics Technology  
Electronics Engineering Technology ♦  
Graphic Arts and Imaging Technology-Electronic Publishing ♦  
Heavy Equipment and Transport Technology ♦  
Horticulture Technology-Greenhouse Operations and Management ♦  
Horticulture Technology-Landscape Maintenance ♦  
Horticulture Technology-Nursery Operations and Management ♦

Industrial Systems Technology  
Mechanical Engineering Technology/Drafting and Design-CAD

Plumbing

Recreational Vehicle Maintenance and Repair Technology ♦♦

Welding Technology ♦

### Health Technologies

Cardiovascular/Vascular Interventional Technology-Cardiac ♦♦  
Cardiovascular/Vascular Interventional Technology-Vascular ♦♦  
Computed Tomography & Magnetic Resonance Imaging Technology-Computed Tomography ♦  
Computed Tomography & Magnetic Resonance Imaging Technology-Magnetic Resonance Imaging ♦

## Educational Programs

Forsyth Middle College (High School Program)  
Winston-Salem Teachers Academy

## Corporate & Continuing Educational Programs

Adult Basic Education  
Adult Literacy Apprenticeship Program  
CareersNOW! Vocational Programs  
Community Service Programs  
Compensatory Education  
Computer Applications  
Detention Officers Certification Course (DOCC)  
Educational Career Center-JobLink  
Emergency Services  
Employee Health and Safety  
English as a Second Language (ESL)  
Focused Industrial Training  
General Educational Development (GED) in English and Español  
HVAC Apprenticeship  
Health Occupations  
Human Resource Development (HRD)  
Industrial Technology  
Inside Wireman Apprenticeship  
Language and Cultures  
Licensure and Certification Courses  
New and Expanding Industry  
Plumbing I Apprenticeship  
Pre-Employment Training  
Small Business Center

### Educational Services

Basic Skill Assessments  
Customized Spanish  
Customized Training  
Educational and Career Planning  
Job Task Analyses  
Training Needs Assessments  
Forsyth Tech Hispanic Center

*See index for program page numbers.*

# Admissions

## Student Development Services

The mission of Student Development Services is to encourage students to learn, grow and achieve success in a supportive academic environment. The Student Development Services mission is accomplished by providing a variety of services in accordance with the Forsyth Technical Community College mission. Student Development Services staff members coordinate these services in cooperation with all other divisions on campus. Services for students include recruitment, placement testing, accommodations for students with disabilities, admission and orientation to the college, registration, counseling and career services, information and referral services, student records, career guidance, drug and alcohol awareness education, student financial services and student activities.

## General Information

Forsyth Tech is an equal opportunity institution and operates under an open-door admissions policy. Admission to the college's programs is open to all students with a high school diploma or its equivalent. High school students and home-schooled applicants 16 years of age or older may be admitted into college credit and continuing education courses in accordance with the dual enrollment policies adopted by the state of North Carolina.

Forsyth Tech offers programs of study leading to a degree, diploma or certificate in areas of business, health, general education and engineering technologies. In addition, the college offers the associate in arts and associate in science college transfer degrees, including 15 pre-major courses of study.

The admissions process requires the following:

- Application
  - Official transcripts of secondary (high school or equivalent) and post-secondary work
- Other documents may also be required to participate in clinical or practical training courses in certain programs such as:
- Health examinations
  - Reference forms, when requested
  - Specific Licensure

- CPR for Health Programs

**All official documents become the property of the college.**

Admission to the college does not imply immediate admission to the program desired by the applicant. Placement in certain programs is limited, and admission to a specific program of study is based on guidelines developed to ensure the student's chance of success in the program.

Admissions counselors and advisors use the applicant's educational achievements and placement test results to assess his/her potential for success in specific instructional programs. If evaluations of the applicant's test scores and high school records indicate his/her lack of readiness to enter a specific course, the applicant may be required to enroll in a developmental education course to prepare for admission to the desired program. Through counseling conferences held before admission, the applicant may obtain assistance in setting realistic goals.

If an applicant applies but does not enroll, his/her documentation remains on file for only one year. After one semester, the student must re-apply and provide any additional information that may be required.

Forsyth Tech reserves the right to refuse admission to any student whose enrollment or continued presence is considered a risk for campus safety or disruption of the educational process.

The applicant should submit a completed application to the Admissions Office for the semester he/she plans to enroll. Although potential students may apply at any time prior to the beginning of the semester, the applicant is encouraged to complete the admissions process as early as possible. This allows adequate time for processing and satisfying admissions requirements for programs of study. Write, call or access our Web site to obtain an *Application* and detailed information about instructional programs, or call for an appointment to meet with an admissions counselor.

### Admissions Office

**Forsyth Technical Community College**

**2100 Silas Creek Parkway**

**Winston-Salem, N.C. 27103-5197**

**(336) 734-7253**

**[admissions@forsythtech.edu](mailto:admissions@forsythtech.edu)**

An application is also available online.

**<http://www.forsythtech.edu>**

Please read the Corporate & Continuing Education section of this catalog to learn about admissions requirements for non-credit programs.

## Transcripts/Credit Assessment

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Admissions requires an official transcript from a high school, an adult high school diploma program or a general education development (GED) certificate program. Applicants who have earned the GED certificate in North Carolina are requested to have a transcript certifying high school equivalency sent to the Admissions Office.

Write to:

State GED Administrator  
Department of Community Colleges  
200 West Jones Street  
Raleigh, N.C. 27603-1337

Students who have completed an associate's or bachelor's degree may substitute their official college transcript showing the graduation date in place of their high school transcript for certain programs. Students desiring transfer credit must request official transcripts from post-secondary institutions they have attended before credit can be evaluated.

Applicants for most programs will be required to submit scores on either the Scholastic Aptitude Test (SAT), the American College Test (ACT) or the placement test given at Forsyth Tech. Other placement test scores may be evaluated by the admissions staff. Information concerning the SAT/ACT may be obtained from local high school counselors or Counseling and Career Services in Student Development Services. Information on and registration for the placement test is available at the Information Desk (1<sup>st</sup> Floor), Allman Center, Main Campus. To receive practice tests, worksheets and tips on taking the placement test, contact the Forsyth Tech Learning Center at (336) 734-7365, or [tutor@forsythtech.edu](mailto:tutor@forsythtech.edu).

Test results are used in helping students assess their skill levels and achievements in relation to their interests and desires. This information provides a basis for placing students in appropriate courses.

## Admissions Requirements for Home School

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The home school administrator must show and provide proof that the home school is certified by the North

Carolina Department of Non-Public Instruction. This means that the administrator must have a school approval number (if available), a charter for the school or anything that denotes approval from the North Carolina Department of Non-Public Instruction and provide copies of this information with the application.

The home school administrator must complete the "high school student permission for enrollment" section in the credit courses section of the application and provide an official home school transcript. If the home school administrator does not have an official transcript, a **Transcript Request Form** is available in the Admissions Office at Forsyth Tech. The transcript has to be complete and notarized before it is considered acceptable. Home school administrators from outside North Carolina must provide proof from their respective states that the home school is certified.

If the home school administrator and/or the student does not have the proper certification, the student cannot register for any credit courses at Forsyth Tech. If the student insists on enrolling, he/she must obtain a general education development (GED) certificate or adult high school (AHS) diploma from Forsyth Tech's Corporate & Continuing Education program before being eligible to register for other classes.

## Admissions Requirements for Programs

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The basic requirement for admission to any program is a high school diploma or its equivalent. Applicants who are not high school graduates may arrange to complete their high school requirements through the Corporate & Continuing Education program [general education development (GED) or adult high school (AHS)]. Applicants who are not high school graduates but who demonstrate an ability to benefit from the instruction may be admitted to many certificate and diploma programs that emphasize skills-based training.

Some programs have limited enrollment, and prospective students are encouraged to apply early. Some of these limited-enrollment programs may have application pools for the program. Students in the application pools may take the general education courses required in the program, subject to an academic advisor's approval.

## Associate Degree Program

The associate degree program requires students to have strong backgrounds in reading comprehension, writing and mathematics.

All health programs use a selective admissions process. Students in health credit programs who are assigned to clinical settings will have additional fees for uniforms, liability insurance, parking and other requirements. Students who want to be considered for a different program must complete a new application. Students meeting minimum requirements are assessed on a rating scale that ranks previous course grades in English, biology, algebra and completion of other health-profession training programs. Highest-ranking students will be admitted first. Students not admitted must re-apply to be considered for the next acceptance class.

Please note that certain health technologies programs must admit applicants under state statutes of the licensure agencies. The North Carolina Board of Nursing has state statutes that identify reasons for prohibiting licensure for associate degree nursing and practical nursing graduates. The reasons are referred to the department chairperson.

All students in nuclear medicine technology, radiography and radiation therapy technology come under the radiation exposure regulations of the state and federal government (radiation safety hazard regulation). Any student who receives exposure in excess of permissible limits as defined by the regulations will be advised of the possible harmful effects and may be dropped from the program. The regulations pertaining to students below the age of 18 are more stringent than those for the older student.

## Diploma and Certificate Program

For non-high school graduates with special abilities, exceptions to the required diploma may be made under certain circumstances in all programs except practical nursing. Applicants may be admitted into some programs on the basis of high school records; however, permission granted by department chairpersons may be required. For example, Dual Enrollment students.

In many program areas the courses earned in completing the certificate program count toward the diploma and/or the associate's degree. Questions concerning the need for testing or the application of credits should be directed to the Admissions Office.

## Transfer Credit

Applicants who have attended other post-secondary institutions may transfer credits in courses comparable in content, objective, quality and credit hours to those offered at Forsyth Tech. In addition, all veterans or active duty military can receive physical education credit upon receipt of the necessary documentation. When granting a transfer credit is in question, the student may be asked for supporting documentation such as a course description or course syllabus.

For accepted students, Forsyth Tech evaluates transfer credit for equivalent courses with the grade of C or better from member institutions of the North Carolina Community College System and other post-secondary institutions accredited by a regional accrediting association. Courses taken on a pass/fail basis will be considered only after receiving (in writing) the requirements necessary to receive a passing grade. The college transfer technician, director of admissions and the appropriate dean in consultation with the appropriate department chairperson will recommend to the vice president of instruction who will then make the final decision on the transfer of credit for questionable courses. A written evaluation will be sent to the student.

Credits transferred from other schools will be reflected on students' transcripts as hours earned and will not be used in the computation of grade point averages. A grade of TR will be given to show that the course was transferred from another college.

Many courses with technical or skill content have time limitations on the acceptance of transfer credit. This includes credits earned at Forsyth Tech, as well as at other institutions. Generally, courses in this classification taken more than five years before entry into Forsyth Tech cannot be considered for transfer purposes. The department chairperson responsible for the program of study determines the specific time limitations. Inquiries concerning transfer credits granted must be made to the college transfer technician in the Admissions Office during the student's first semester of enrollment. If a student is dissatisfied with the transfer credit granted, he/she should send a written request for re-evaluation to the director of admissions. After consulting with the division dean, the college transfer technician will notify the student of the final decision on transfer credit to be granted.

# Articulated Courses

## Tech Prep Programs of Study

Forsyth Technical Community College and the local high schools have entered into the North Carolina School-to-Community College Articulation Agreement. This agreement allows students to outline specific high school programs of study that will grant them advanced standing credit when they enroll in a community college upon high school graduation.

The North Carolina School-to-Community College Articulation Agreement allows students in high school to take academic and vocational courses that will exempt them from certain required courses at the community college level. Forsyth Tech has outlined many programs of study in degree and diploma areas for which students can receive advanced standing credit. These articulated courses require the student to meet the prerequisites for the high school course and receive a grade of B or better. If the prerequisites are met, the student is exempted from the placement test in that subject area.

Students are encouraged to declare that they are a college prep student and work with their high school counselor to register and select the correct sequence of courses in grades 9, 10, 11 and 12. The final high school transcript must indicate successful completion of the correct sequence of courses with a grade of B or better.

Local High School Course Title	Course Prefix/No.	
<b>Forsyth Tech Title</b>		
Principles of Business	BUS 110	Introduction to Business
Business Law	BUS 115	Business Law
Business Management & Applications	BUS 137	Principles of Business or
	OST 181	Introduction to Office Systems
Small Business/Entrepreneur	BUS 230	Small Business Management
Business Management	BUS 230	Small Business Management
Business Management	BUS 137	Principles of Management or
	OST 181	Intro to Office Systems
Computerized Accounting I	ACC 111	Financial Accounting
Cisco Networking I	NET 125	Routing & Switching I
	NET 126	Routing & Switching II
Cisco Networking II	NET 225	
	NET 226	Adv. Routing & Switching
Computer Applications I	CIS 111	Basic Literacy or
	CIS 113	Computer Basics
Computer Applications I	OST 136	Word Processing
Computer Applications I & II	CIS 120	Spreadsheets I
Computer Applications II	OST 137	Office Software
		Applications or
	OCT 165	Desktop Publishing I
Computer Applications I & II	CIS 169	Business Presentations
		Printing Graphics
Communications I	GRA 121	Graphics Arts I and
	GRA 110	Orientation

Printing Graphics			
Communications II	GRA 151	Computer Graphics I	
Horticulture I	HOR 150	Introduction to Horticulture	
Horticulture II	HOR 152	Horticulture Practices	
Horticulture I & II	AGR 120	Pesticide Use & Handling and	
	AGR 160	Plant Science and	
	AGR 170	Soil Science	
Keyboarding - High School	OST 131	Keyboarding or	
	OST 134	Text Entry & Formatting or	
	OST 136	Word Processing	
Strategic Marketing	MKT 120	Principles of Marketing	
Business Finance I	BUS 125	Personal Finance	
Early Childhood Education I & II	EDU 119	Early Childhood Education or	
	EDU 111	Early Childhood	
		Credentialing I and	
	EDU 112	Early Childhood	
		Credentialing II and	
	EDU 145	Child Development II	
Cooperative Education	COE 111	Cooperative Education I	
		(Early Childhood)	
Early Childhood I & II	COE 115	Work Experience Seminar I	
Health Careers I & II or Allied			
Health Sciences I & II	MED 130	Administrative Office	
		Procedures I	
Health Careers I or Allied			
Health Sciences I	MED 121	Medical Terminology I	
Health Careers II or Allied			
Health Sciences II	MED 122	Medical Terminology II	
Air Conditioning , Heating,			
& Refrigeration I & II	AHR 110	Introduction to Refrigeration	
	AHR 111	HVACR Electricity	
(Mechanical Systems I & II)	AHR 112	Heating Technology	
(Wheels of Learning Modules)	AHR 113	Comfort Cooling	
	AHR 114	Heat Pump Technology	
	AHR 160	Refrigeration Certification	
Automotive Technology I			
(with teacher recommendation)	AUT 110	Introduction to	
		Automotive Tech	
Automotive Technology II	AUT 151	Brake Systems	
	AUT 152	Brake Systems-Lab	
	AUT 161	Electrical Systems	
	AUT 115	Engine Fundamentals	
Auto Body Repair I & II			
(with teacher recommendation)	AUB 111	Painting & Refinishing I	
Electronics I	EGR 131	Introductions to	
		Electronics Tech	
Electronics I & II (with teacher			
recommendation and			
proficiency exam)	ELC 111	Introduction to Electricity	
Electronics II			
(with proficiency exam)	ELC 131	DC/AC Analysis	
Metal Manufacturing I	BPR 111	Blueprint Reading	
Metal Manufacturing II	MAC 111	Machine Technology I	
	MAC 151	Machine Calculations	
Welding I & II	WLD 110	Cutting Processes and	
	WLD 115	SMAW (Stick) Plate and	
	WLD 116	SMAW (Plate) Pipe and	
	WLD 131	GTAW (Tig) Plate and	
	WLD 141	Symbols & Specifications	
	CAR 110	Introduction to Carpentry	
Carpentry I			
Carpentry I & II			
(with teacher recommendation)	CAR 111	Carpentry I	
Commercial Art I Technology			
Studies (with teacher			
recommendation, proficiency			
exam & portfolio)	GRD 141	Graphics Design	
	ARC 111	Introduction to Arch	
		Technology and	
Technology Studies	ARC 113	Residential Arch Tech or	
Structural Systems	HUM 110	Technology and Society	
Structural Systems	DFT 119	Basic CAD	
	ARC 114	Architectural CAD	

# COURSES BELOW DO NOT REQUIRE VOCATS SCORES

Technical Math I	MAT	101	Applied Math I
Technical Math II	MAT	115	Mathematical Models
Algebra I	MAT	070	Introductory Algebra (Can not be taken while in High School.)
Algebra II	MAT	080	Intermediate Algebra (Can not be taken while in High School.)
Algebra III (with proficiency exam)	MAT	121	Algebra/Trigonometry
Honors English IV	ENG	101	Applied Communications I

## Advanced Placement (AP)

Secondary school students enrolled in advanced placement (AP) courses may receive college credit upon completion of the courses with a "B" or higher and forwarding the results to the Admissions Office for evaluation.

Local High School Course Title FORSYTH TECH Title	Course Prefix/No.		
AP English-Language & Composition (score 3 or better)	ENG	111	Expository Writing
AP English-Composition & Literature (score 3 or better)	ENG	112	Argument-Based Research
AP Spanish - Language (3 or 4)	SPA	111	Elementary Spanish I
AP Spanish - Language (5)	SPA	111	Elementary Spanish I
	SPA	112	Elementary Spanish II
AP French - Language (3 or 4)	FRE	111	Elementary French I
AP French - Language (5)	FRE	111	Elementary French I
	FRE	112	Elementary French I & II
AP German - Language (3 or 4)	GER	111	Elementary German I
AP German - Language (5)	GER	111	Elementary German I
	GER	112	Elementary German II
AP Math AB (3 or better)	MAT	271	Calculus I
AP Math BC (5)	MAT	271	Calculus I
	MAT	272	Calculus II
AP Statistics (3 or better)	MAT	151	Statistics I
	MAT	151A	Statistics I Lab
AP Biology (3 or 4)	BIO	111	General Biology I
AP Biology (5)	BIO	111	General Biology I and
	BIO	112	General Biology II
AP Chemistry (3 or 4)	CHM	151	General Chemistry I
AP Chemistry (5)	CHM	151	General Chemistry I and
	CHM	152	General Chemistry II
AP Physics (3 or 4)	PHY	151	College Physics I
AP Physics (5)	PHY	151	College Physics I and
	PHY	152	College Physics II
AP Psychology (3 or better)	PSY	150	General Psychology
AP Art History (3 or 4)	ART	114	Art History Survey I
AP Art History (5)	ART	114	Art History Survey I
	ART	115	Art History Survey II
AP Art Drawing I (3 or better)	ART	131	Drawing I
AP Art Portfolio 2 or Portfolio 3 (3 or better)	ART	214	Portfolio & Resume
AP Environmental Science (3 or better)	BIO	140	Environmental Biology
	BIO	140A	Environmental Biology Lab
AP Government & Politics: US (3 or better)	POL	120	American Government
AP Government: Comparative (3 or better)	POL	210	Comparative Government
AP US History (3 or 4)	HIS	131	American History I
AP US History (5)	HIS	131	American History I
	HIS	132	American History II
AP European History (3 or 4)	HIS	121	Western Civilization I
AP European History (5)	HIS	121	Western Civilization I
	HIS	122	Western Civilization II
AP Music Theory (3 or better)	MUS	121	Music Theory

## Changing Program of Study

When a student changes from one program of study to another within Forsyth Tech, credits attempted, grades, hours earned and quality points can be transferred for identical courses. A student's initial cumulative grade point average (GPA) in a new program will be computed from the credits forwarded to that program. For courses that are not identical but are comparable, credit will be granted in the same manner as courses transferred from another institution. Such courses will not be used in computing GPA; only hours earned will be transferred, and a grade of CR (credit granted or passed proficiency) will be given to show this credit.

## Re-Admission

Students who have withdrawn in good academic standing should contact the Admissions Office to update their application. If the application for re-admission is for a different program, standard admissions requirements for new students will apply.

Students who have withdrawn while on academic probation or who have been suspended for academic deficiencies must re-apply through the Admissions Office. Approval for re-admission to the same program or a different program will be based on the applicant's ability and aptitude, the time elapsed since withdrawing, recommendations of the appropriate division personnel and the applicant's career objectives. Students granted re-admission may have course load restrictions, specific grade requirements and/or required counseling sessions in order to remain enrolled in the program. When good academic standing has been re-established, the restriction(s) will be removed.

There are specific additional guidelines for re-entry into the health program. These guidelines may be obtained from the Admissions Office.

Former students who re-apply for admission may be asked to supply the Admissions Office with transcripts and test scores. Students who have been suspended for disciplinary reasons or health/safety reasons cannot be re-admitted without submitting a request for re-admission to the vice president of Student Development Services. The request for re-admission is subject to review by the division dean.

## Special Credit Students

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Applicants interested in taking only a limited number of courses may, in many programs, enroll as a special credit student. Special credit students are permitted to register for some credit courses without having to be admitted as a regular credit student, provided that prerequisites have been met and such registration does not pre-empt students enrolled in a degree, diploma, or certificate program. Some credit courses will not be available to special credit students without prior instructional division approval.

For admission to Forsyth Tech, a special credit student needs to be a high school graduate and complete an application for admission. Special credit students may be asked to take the placement test and may have to furnish official transcripts in order to meet course prerequisite requirements.

While there are no limitations on the number of credit hours a special credit student may earn, students earning 12 or more credit hours will be advised to seek admission into a program. Special credit students who decide to complete a program of study at Forsyth Tech should apply for admission by submitting an updated application. They must meet current admissions requirements and if approved, will be accepted under the program of study in effect for the program at the time of acceptance. Satisfactory completion of courses as a special credit student does not automatically guarantee admission to a program.

Generally, students are approved for special credit status in the following circumstances:

- The student wishes to take some relevant credit courses prior to making a decision about applying for a specific program. Students may wish to choose this route in order to reduce their course load once in the program and thereby improve chances for success.
- The student wishes to take specific courses but does not plan to pursue and complete a program at Forsyth Tech.
- The student has been denied admission into a specific program that has already reached its quota at the time of application but wishes to complete the related courses.

All policies, rules and the code of conduct apply to special credit students. Special credit students are not

eligible for any form of financial aid through Forsyth Tech.

## Dual Enrollment Students

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Junior and senior high school students and home-schoolers who are at least 16 years of age may enroll in credit courses tuition-free provided prerequisites have been met and registration does not pre-empt students enrolled in a degree, diploma or certificate program. Official written permission must be obtained from their high school principal and guidance counselor along with a high school transcript. This permission must be forwarded to the Forsyth Tech Educational Partnerships Office. Under the dual enrollment agreement, students will receive both high school and college credit for completed credit coursework and are considered special credit students. All program work applies toward graduation at Forsyth Tech. Courses taken in the college transfer associate in arts or associate in science degree credit program are transferable to most four-year senior colleges and universities in North Carolina. High school students also may enroll concurrently in continuing education courses, but students are responsible for tuition.

## Forsyth Middle College

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The Forsyth Middle College is a high school located on the campus of Forsyth Tech. It is a collaborative project of the Winston-Salem/Forsyth County Schools and Forsyth Tech. The program is designed to provide students with an alternative academic environment to complete their high school coursework while also having the option to enroll in college-level classes as a part of the Dual Enrollment Program. The Middle College operates on a five-day schedule, Monday through Friday, from noon to 5:30 p.m.

The Middle College is a program for juniors and seniors who are at least 16 years of age and who are interested in earning their high school diploma and furthering their education at the community college or a four-year college or university. Students must have a clean behavioral record and the self-motivation to complete the requirements for their high school diploma. The program is primarily serving young people who have had an A or B average in high school and then encountered a sudden decline in their educational experience. It is not designed for students who have long-term grade difficulties or inability to succeed in

rigorous high school coursework.

To be admitted to the program, students must complete an application and a 50-word essay explaining why they would like to be a part of the Middle College. Grade transcripts and a counselor recommendation from the previous high school are also required as part of the application process. A selection committee consisting of the Middle College principal, the counselor and a teacher interview the student to evaluate his or her candidacy for the program. New students are admitted once every quarter with the average enrollment totaling 100. Please inquire in the Office of Educational Partnerships on Main Campus.

## **International Students**

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Forsyth Tech will admit certain international students with proper authorization from the Department of Homeland Security or the Bureau of Citizenship & Immigration Services. The college is not approved to admit students that require the use of an I-20. In addition, the college does not enroll or admit F-1, M-1 or B visa holders. Procedures for applying and being admitted to the college are available in the Admissions Office.

# **Academic Advising & Registration**

## **Academic Advising**

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Forsyth Tech has an advisor/advisee program that is designed to provide a more personal atmosphere for the student and to increase communication between students and faculty. Each student is assigned an academic advisor who provides information related to program content, course content and prerequisite requirements, graduation requirements and general information. Academic advisors assist in course planning and scheduling and also make referrals for personal counseling, financial aid counseling or academic tutoring.

All students are required to meet with an academic advisor prior to registration or during the registration period. The purpose of this meeting is to ensure that course selection is appropriate for the student's educational goals and skill levels. Registration cards are to be signed by the student's academic advisor.

## **Registration**

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Forsyth Tech operates on the semester system. Fall and spring semesters are 16 weeks, and the summer term is 10 weeks. Some courses are offered on an eight-week or other alternative schedule during fall and spring semesters and summer term. In addition, upcoming registration and prepayment dates for currently-enrolled students are posted during the latter part of each semester.

On registration days, as published in the class schedule, all approved students may see an academic advisor and register for classes for that semester. Academic advisors are on campus to assist students with the registration process, and the Cashier's Office is open to accept tuition and fees. Students may register for or drop courses on these days.

## **New Students**

The times and dates for registering can be found in the class schedules or class listings. At registration, new students will meet with an academic advisor who will assist in the selection of courses and schedules. Participation in an orientation session conducted by the Counseling and Career Services staff is strongly

recommended. This session provides an overview of the regulations, policies and privileges of Forsyth Tech as found in the *College Catalog* and the *Student Handbook*.

## Returning Students

Each semester, returning students admitted to a program may register early. To register for courses, students are required to meet with their academic advisor to determine a schedule of courses for the upcoming semester. Any questions arising during this registration period concerning transfer credit for course(s) should be directed to the college transfer technician in the Admissions Office. To take advantage of this early registration, students must be sure to pay tuition and fees on the designated prepayment days.

## Special Credit Students

Special credit applicants wishing to register for classes should come to the advertised locations on the scheduled registration days to register and pay tuition and fees.

## Telephone Registration

Students who are currently enrolled at Forsyth Tech may register by telephone using the registering students via phone (RSVP) system. Current students will receive their personal identification number (PIN) from their advisor and should contact their academic advisors prior to registering. Payment of tuition and fees may be made by MasterCard or VISA (credit/debit cards) at the time of registration or later at the Cashier's Office.

## Schedule Changes

To change their schedules, students may obtain a *Registration Adjustment Form* from the designated registration area. Students may drop and add classes during the drop/add period as noted in the class schedules or class listings. An academic advisor must approve all additions to students' schedules. Classes may not be added after the drop/add period without permission of the division dean.

## Grade Reports and Transcripts

Students' grade reports are mailed after the end of each semester. The report includes the semester hour credits and the grade point average (GPA) earned and the cumulative GPA for the semester.

Transcripts reflecting students' complete academic

record at Forsyth Tech are maintained in the Records Office. Students may come to the office and complete a *Transcript Request Form*, or they may write a letter stating the name or names under which they attended the college, their social security number, the years they attended and where the transcript should be sent. Official transcripts are sent directly to employers, educational institutions, etc. Transcripts issued to students are unofficial and indicate that they were issued to the student. While an official transcript in a sealed envelope may be issued to students, the transcript will note this procedure, and any receiving party will determine its acceptance as official. Students must pay a charge of \$2 for each transcript.

## All official documents become the property of the college.

A student's record may be sealed from the student's review and closed for purposes of re-admission and grade posting due to financial debt to the college or litigation involving the student and the college. Inquiries regarding sealed records should be directed to the Records Office. Transcripts will not be issued as long as the file remains sealed.

## Graduation Requirements

To be eligible for graduation, students must complete all the courses and credit hours required in programs of study with a cumulative grade point average (GPA) of 2.0. In addition, students must have received a passing grade in courses in their program.

A candidate for an associate's degree must complete at least 20 semester hours of credit at Forsyth Tech, with a minimum of 10 semester hours of credit in their major area. A candidate for a diploma must complete at least 10 semester hours of credit at Forsyth Tech, with a minimum of 8 semester hours of credit in their major area. Candidates for a certificate of completion must complete a minimum of 25 percent of their required course work at Forsyth Tech. These requirements may not be met by proficiency examination.

Course requirements vary according to program. Students should refer to the course requirements for their program to determine if all requirements have been met and should routinely meet with their academic advisor to assure their progress toward graduation.

Every academic year, each program publicizes a

program of study for students admitted in that specific year. Students will graduate under the course requirements that are applicable at the time they enroll in a program if they remain continuously enrolled until graduation and complete all requirements within three years of initial enrollment. A student who applies for re-admission after two or more semesters is accepted under the program of study in effect at the time of re-admission, not under the program of study in effect at the time of the original admission. Students who change their program are also admitted to the new program under the current year's program of study.

In order to have complete information recorded on their transcripts, students should apply for their degree, diploma or certificate at the time of their last semester registration. *Intent to Graduate Forms* are available in the Records Office, Room 106 (1<sup>st</sup> Floor), Allman Center, Main Campus, the Cashier's Office (2<sup>nd</sup> Floor), Allman Center, Main Campus or at each of the centers. A \$10 non-refundable graduation fee that must be paid at the time the form is filed.

## Student Withdrawals

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Students considering withdrawing from a class or from school are encouraged to contact their instructor(s) and academic advisor to discuss the decision to withdraw. A *Drop Form* may be obtained in the Records Office, Room 106 (1<sup>st</sup> Floor), Allman Center, Main Campus. When the student initiates a withdrawal or drop, the date the student completes the *Drop Form* is considered the official withdrawal date. When the instructor initiates a drop, the date the instructor records on the *Drop Form* is the official withdrawal date. When students fail to notify the Records Office, they may receive a failing grade.

**Withdrawal from a Class** - Students are responsible for completing a *Drop Form* and notifying their instructor(s), academic advisor, Records Office or Counseling and Career Services of the decision to withdraw.

**Total Withdrawal from School** - Students who must withdraw from school before graduation, either permanently or temporarily, should withdraw officially. Students are responsible for completing a *Drop Form* and for notifying their instructors, academic advisors, Records Office or Counseling and Career Services of the decision to withdraw.

Students planning to discontinue enrollment at the end of a semester should fill out an *End of Semester Withdrawal Form* available in Counseling and Career Services. This information is necessary to ensure that students' status at the time of withdrawal is clearly identified in order to expedite re-entry, to expedite transfer of credit to another institution or to provide potential employers with accurate education information. Veterans and financial aid recipients must notify Student Financial Services.

## Family Educational Rights and Privacy Act of 1974

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The Family Educational Rights and Privacy Act of 1974 (FERPA) provides many safeguards regarding the confidentiality of, and access to, student records.

1. Students may review their educational records by making a written request to the coordinator of records.
2. Student records will not be reviewed by third parties unless permission is obtained in writing from the student. Exceptions may be made for instructors and administrators if the information is for educational purposes. Exceptions may also be made for parents who claim the student as a dependent and for credentialing, auditing or accrediting organizations. The vice president of Student Development Services will make the final decision concerning access to records.
3. Transcripts will be issued only when a written request is received from the student. Transcripts from high schools or other colleges will not be released.
4. Forsyth Tech does not publish or distribute student information or any personally identifiable information.
5. Forsyth Tech publishes the names of graduates in the graduation program and in local news media. Names of students attaining academic honors each semester are also published. Students who do not wish their names published for graduation or academic honors must notify, in writing, the director of Records/Registrar of their desire not to have their names published.
6. Authorities with court orders are permitted to review records in the presence of Student Development Services' administrative staff. This section covers academic policies effective at the time of this catalog's publication.

## Students Rights to Privacy Statement

Forsyth Tech does not publish or distribute student information or any personally identifiable information in accordance with the Family Rights to Privacy Act.

In compliance with the Solomon Amendment, the college releases the following information to any branch of the Armed Services upon their request - student's name, address, telephone number, age, and major.

The college also publishes the names of graduates in the commencement program and in local news media. Names of students attaining academic honors each semester are also published. Students who do not wish their names published for graduation or academic honors must notify, in writing, the director of Records/Registrar of their desire not to have their names published. Information may also be released to appropriate parties in connection with an emergency if knowledge of the information is necessary to protect the health or safety of the student or other individuals. Please contact the director of Records/Registrar at 734-7314 if you have any additional questions.

## Academic Information

### Classification of Students

**Full-time:** A student who is enrolled in 12 or more credit hours of course work; 9 hours for summer term (financial aid requirements are different for summer term).

**Part-time:** A student who is enrolled in fewer than 12 credit hours of course work; fewer than 9 hours summer term.

**Special Credit:** A student who is enrolled in credit courses, but who is not working toward a degree, diploma or certificate.

**Audit:** A student who is enrolled in regular course work, but who is not receiving credit for work undertaken.

### Program of Study Information

Students admitted to a degree, diploma or certificate program must meet the requirements listed on the program of study for the academic year during which students were initially enrolled in the program. In general, students should work closely with their academic advisors to ensure they follow the sequence of courses listed on the program of study to meet all course prerequisites and to complete the program within three years of initial enrollment.

### Prerequisites and Corequisites

Many program courses have prerequisites and corequisites that are listed in the course descriptions at the back of this catalog. Before these courses may be taken, any prerequisite course must be completed, and corequisites must have been taken during a previous semester or be taken during the same semester. Bold-typed prerequisites and corequisites are requirements at the local community college level. If a prerequisite and/or corequisite are regular font type, they are state mandated requirements and **cannot** be waived. If the occasion arises in which a **local** prerequisite should be waived, both the appropriate department chairperson and dean must approve the waiver in writing. If a course affects more than one division, written approval may be necessary from more than one department chairperson and dean before the student registers for that course.

## **Course Attempts Rule (Course Repeat)**

Students may not repeat a course either for credit or audit more than three times without permission of the appropriate dean. Grades of Withdrawal (W), Withdrawal Passing (WP), Withdrawal Failing (WF), or Audit (Y) will be considered as an attempt regarding this policy.

If students withdraw from or fail any course in their program of study, they must repeat the course; otherwise, they cannot receive a degree, diploma or certificate. Students are responsible for scheduling make-up courses required for graduation. Students may take a course at another college to meet graduation requirements as long as doing so does not violate the minimum number of courses that must be completed at Forsyth Technical Community College. Students who fail one of the courses in the major subject area may be referred to the Counseling Center. The appropriate dean will make the final decision on students' permission to enroll in a course after three attempts. A log will be maintained in each academic dean's office documenting approval for each student attempting a course four or more times.

## **Course Substitutions**

Course substitutions may be granted when deemed necessary for graduation or as a necessary accommodation to complete a degree. The appropriate department chairperson's and dean's written permission is required. Core courses cannot be substituted.

## **Proficiency Exams**

Students who have been approved for admission or are already enrolled in a program of study may request to take a proficiency exam for a course that has a proficiency exam available. Students must receive permission from the appropriate department chairperson to earn credit for the course by proficiency examination. A list of courses currently available for credit by proficiency is available in Counseling and Career Services.

Students do not necessarily have to be registered or enrolled in a course before requesting a proficiency exam for a course that has a proficiency exam available. However, if students are enrolled in a course for which a proficiency exam is requested, the request must be made by the 10<sup>th</sup> day of class. Students who withdraw from a course after the 10<sup>th</sup> day of class in

any semester and have not formally submitted a request may not earn credit for that course by proficiency exam for a period of one year. Academic advisors will certify that students have not been enrolled in the course within the past year and that the prerequisites for the course have been satisfied.

Some programs have restricted proficiency exams, and students must be admitted to that program before a request will be considered. Students may take a proficiency exam for a given course only once in a 12-month period at a non-refundable cost of \$10 per exam. Guidelines on how to apply for a proficiency exam can be obtained from the office of the appropriate division dean, Counseling and Career Services or the Records Office. Students who successfully pass a proficiency exam for a class will be given a grade of CR (credit granted or passed proficiency) and hours earned will be granted but will not affect their grade point average (GPA).

## **Developmental Education Program**

This program offers a series of courses for preparation, skill development and academic guidance to students who, for a variety of reasons, need additional courses because they do not meet the specific academic competencies for the program of their choice. Students' academic study programs are individually designed to meet students' specific needs. The program provides students with an opportunity to build academic skills and acquire the background that should facilitate success in their desired program.

These developmental courses are prerequisites to required program courses. Students must receive a grade of C or better in each assigned developmental class in order to progress to the next level. Developmental education courses do not meet graduation requirements. See the Developmental Education Program section of this catalog.

## **Distance Learning**

Distance learning courses offer students an alternative to traditional classroom instruction. The courses deliver instructional content to learners across distance and time through the use of technology.

Various program courses are delivered by the following means:

- Telecourses — Students access information in telecourses through television, videotapes and print materials. Telecourse videotapes will be made

available one of two ways:

1. "Course by cassette" service - This service allows students to obtain a complete set of videotapes for their telecourse from the Forsyth Tech Bookstore (lower level), Snyder Hall, Main Campus. Students will need to have a home VCR to view the videotapes.
  2. Cablecast on local cable television - Students will be given a current cablecast schedule to view their telecourse videos on local cable TV.
- Teleweb - Increasing numbers of telecourses also include a course Web site for access to instructional materials and Internet resources. Videotapes for teleweb courses will also be available through the "course by cassette" service or local cable TV.
  - Online courses - Each Forsyth Tech online course has its own Web site, and students access their materials using a computer with reliable Internet access. A home computer for student use is highly recommended.
  - Interactive TV - Students attend classes at a set time and place but are connected with several other classrooms through video conferencing technology.

Credit courses using these delivery technologies offer educational opportunities to Forsyth Tech students who are balancing jobs, family, and personal and professional situations. Distance learning courses offer convenience and flexibility while providing quality instruction and interaction. Support services are available to distance learning students to assist them with academic and support needs. These include electronic access to the reference desk in the library, e-mail access to staff members in Student Development Services, as well as information about student services and the application, *Transcript Request Form*, disabilities services, and career development and educational planning information and resources on the Forsyth Tech Web site. E-mail sent to [askdl@forsythtech.edu](mailto:askdl@forsythtech.edu) puts students in touch with information about distance learning at Forsyth Tech. Other resources are provided on campus by Student Development Services and the Learning Center.

Distance learning courses are demanding and require students to be highly-motivated, independent learners. Students must have college-level reading and writing abilities, as well as strong time management skills. Successful distance learning students must also be able to manage the technology used to deliver instructional

materials. Attendance at a distance learning orientation is required of all distance learning students.

## Independent Study

Independent study provides an alternative for a student to earn credit for certain required courses. It should be used only when it has been determined that it would create an unreasonable hardship for the student to wait for the course to be available. Guidelines to be used are:

- To be considered for independent study, students must file a *Request for Independent Study Form* with their academic advisor, who will review the request and forward it with suggestions to the division dean for final action. The form should be completed during registration, and the student must register for the course during the registration period.
- Acceptable reasons for allowing a student to take an independent study: (a) one-time course sequencing difficulties, (b) scheduling problems that were no fault of the student, and/or (c) needing the course for graduation at the end of the semester.
- Students will not be approved for independent study if their cumulative grade point average (GPA) is less than 2.0 or if they have failed or withdrawn while failing from the course in question.
- Students may be limited in the number of independent study courses taken to complete degree requirements. Exceptions require special approval from the division dean.
- All independent studies must be taught by a full-time instructor.

## Clinical Experience in Health Programs

- Clinical hours in any of the health programs may be scheduled during any part of the 24-hour day, seven days a week.
- Students will be informed in writing no later than the second class meeting when a clinical course has special attendance requirements.
- In order to pass clinical courses, students must pass all critical requirements for the course.
- Required uniforms must fit neatly in order for students to meet the dress code of both Forsyth Tech and the clinical facilities.
- Certain areas (operating room, obstetrics, isolation rooms, etc.) in the hospitals require special hospital garments. To control infection, hospital policy requires that only those garments supplied by the hospital be used. Students who are unable to wear

and be covered by these garments will not be allowed to go into those clinical areas, which may jeopardize their ability to complete the program.

- Failure to meet any dress requirements may jeopardize students' ability to continue in a program.

## Grading System

The grading system found listed below is used for all credit classes at Forsyth Tech. Exceptions must be approved by the appropriate deans, and students must be informed in writing in the course syllabus.

Number Grade	Letter Equivalent	Description	Quality Points per Grade Hr
94-100	A	Excellent	4
86-93	B	Good	3
78-85	C	Fair	2
70-77	D	Passing	1
Below 70	F	Failing	0
Withdrawal	W		
Withdrawal Passing	WP		
Withdrawal Failing	WF		
Incomplete	I		
Audit	Y		
Course Transferred	TR		
Credit Granted or Passed Proficiency	CR		

Grades A, B, C, D, F and WF\* compute in grade point average (GPA).

\* "WF" is computed as an "F" in the grade point average.

Grades W, WP, I, Y, TR, and CR do not compute in GPAs.

**W** - A withdrawal is the grade given to students who officially withdraw from a course through the 14<sup>th</sup> week of fall and spring semesters, the eighth week of summer term or the 75 percent point of a class when the class does not follow the regular semester calendar.

**WP/WF** - A withdrawal passing/withdrawal failing is the grade given to students who officially withdraw from a class at any time after the 14<sup>th</sup> week of fall and spring semesters, the eighth week of summer term or the 75 percent point of a class that does not follow the regular semester calendar.

Students must have permission of the instructor to withdraw with a grade of WP or WF. The grade of WF computes as a grade of F.

**I** - The grade of incomplete is given only if students

have valid reasons for failure to complete the work on schedule and have completed at least 50 percent of the course requirements. Illness, absence on company business or circumstances beyond students' control are considered valid reasons for a grade of incomplete. Students must have advised the instructor of the circumstance before the end of the semester to be granted an incomplete. The instructor must have specified the work to be made up in order to remove the incomplete and a date within the following semester by which the work must be completed. This will be detailed on the incomplete form, which must be attached to the attendance form. If the conditions necessary to remove the incomplete will require additional hours of instruction, students must register for the course again. If students need only to complete work without instructional supervision, this work must be completed no later than the end of the following semester.

Students who receive a grade of incomplete on a course that is a prerequisite for a higher-level course must make up the incomplete work by the end of the drop/add period in order to be allowed to register for the higher-level course.

If the grade of incomplete is not removed by the end of the semester immediately following the semester it was given, it will remain permanently recorded.

**Y** - Students auditing courses are not required to take examinations or submit written work but may do so if they wish. No grade or credit toward a degree or diploma is given. An audit may not be changed to credit or credit changed to audit after the 10 percent point of the semester or the 10 percent point of the class when the class does not begin within the first five days of the semester. Normal attendance policies will apply. Audit students are expected to do assigned reading and participate in classroom activities.

Students withdrawing during the semester will be given the grade of W. The **Audit Request Form** is available in the Records Office or from the appropriate division dean. It must be submitted to the Records Office for processing by the 10 percent point of the class.

## Grade Point Average (GPA)

Academic progress at Forsyth Tech is based on a 4.0 cumulative grade point average (GPA) system. A final GPA of 2.0 is required for graduation from all programs

of study. Students accumulate grade points based on grades earned per semester. The GPA is determined by dividing grade points earned in courses by the number of semester credit hours attempted. The last grade earned in a course will be used to calculate GPA. Grades of withdrawal (W), withdrawal passing (WP), Audit (Y) or incomplete (I) will be considered as repeat grades but will not be considered as the last grade earned in calculating GPA.

## Academic Recognition

### Graduation Honors and Awards

Graduates in programs leading to a degree or diploma qualify for academic recognition at graduation. Students earning a cumulative GPA of 3.50 to 4.00 will be granted a degree or diploma with high honors. Students earning a cumulative GPA of 3.00 to 3.499 will be granted a degree or diploma with honors.

### Honor Societies

#### Phi Theta Kappa (PTK)

Phi Theta Kappa is the international honor society of two-year colleges. The purpose of the society is to recognize academic excellence among two-year college students, provide opportunities for leadership training, provide an intellectual climate for the interchange of ideas and ideals and instill in students the desire for continued education. In order to qualify for membership, students must have a cumulative grade point average (GPA) of 3.5 or better and have earned at least 18 and no more than 48 hours of credit and enrolled in an associate's degree program. Current members must maintain a cumulative GPA of at least 3.0 to remain in good standing.

#### National Vocational-Technical Honor Society (NV-THS)

The NV-THS has been America's foremost scholastic honor society for excellence in vocational and technical education since 1984. Student candidates are persons who have demonstrated scholastic achievement, skill development, leadership, honesty, responsibility and good character. All candidates must be approved by the college administration and must meet local and national membership standards.

### Semester Honors

Credit students who earn a grade point average (GPA)

of 3.50 to 3.999 for the semester are named to the Dean's List for the semester. Credit students with a GPA of 4.0 are named to the President's List for the semester. To be eligible for these honors, students:

1. Must be approved and enrolled in a program. (This excludes students in special credit and certificate programs.)
2. Must earn their GPA on a minimum of 9 credit hours of credit courses.
3. Must have completed all course work for the semester. Students with grades of incomplete (I) will not be eligible.

## Commencement

Commencement is held at the end of spring semester on the date published in the academic calendar. Degrees, diplomas and certificates are awarded at this time. Students must notify the director of Records/Registrar of their intention to participate in the exercises when they submit their *Intent to Graduate Form* at the time of their last semester registration.

### Commencement Marshals

Marshals are selected from students in degree programs who have maintained the highest scholastic averages. The marshal who has the highest academic average is named chief marshal.

### School Rings and Pins

Students in good standing who have completed at least one-half of the credit hours required for graduation in their program may order a school ring. Students are required to pay a deposit at the time the ring is ordered, with the balance due upon delivery. Pins for some health programs are also available. Orders for both pins and rings may be placed in the Forsyth Tech Bookstore (lower level), Snyder Hall, Main Campus.

## Attendance

Forsyth Tech regards class lectures, demonstrations and other in-class experiences as vital ingredients of the educational process. For this reason, students are expected to attend and arrive on time to all class, laboratory, shop, practicum and clinical experience sessions. Students are responsible for accounting to their instructors for any absence and should report to their instructors following any absence to determine if and when work may be made up. Habitual tardiness may, at the discretion of the instructor, be considered in

computing attendance.

Students must satisfy the instructor that they should be permitted to remain in a course and attend classes after incurring absences in excess of the following:

1. five hours of class,
2. three practicum (shop, laboratory or clinical experience) sessions that meet for two or more hours, or
3. three hours of class and one practicum (shop, laboratory or clinical experience) session that meets for two or more hours.

When students are absent from a class and a practicum (shop, laboratory, clinical experience) session that meets consecutively, each session missed will be counted as an absence.

Special attendance rules, different from those listed above, must be noted in the instructor's attendance policy included on the course syllabus. Students with questions or concerns should consult with their instructor.

## **School Closing Due To Inclement Weather (Closing the College)**

The decision to cancel all or any portion of college classes during inclement weather is the responsibility of the president or designated representative. A communication system has been established to inform staff personnel and all local news media when the decision is made to cancel certain classes or to close the college.

The guidelines listed below will be followed when classes are canceled due to inclement weather. All faculty and students may call the school or listen to radio announcements. When there is no announcement, there will be school.

When the decision is made to cancel day classes, it will be announced through the news media prior to 6:15 a.m. The decision to cancel day classes will be on a day-by-day basis and will apply to all day classes offered by the college regardless of location.

When classes are canceled, only personnel required to deal with inclement weather will be required to be at the college. Any compensatory time will be determined by the appropriate administrator. All other full-time personnel will not be required to be at the college.

In accordance with current NCCCS guidelines, all part-

time personnel will either 1) make-up the time/class missed for inclement weather and document the made-up time, or 2) be docked for the period of time missed due to the college closing. The college reserves the right to schedule make-up classes based on the availability of make-up days. The appropriate administrator will make the final decision regarding time to be made-up.

A decision to cancel evening classes may be made at the same time as the cancellation of day classes or at any time prior to 5 p.m. of that day. This decision will apply to all evening classes regardless of location.

Early dismissal of day classes because of inclement weather is the responsibility of the president or designated representative. All classes and offices will be notified when this decision is made.

Early dismissal of evening and weekend classes because of inclement weather is the responsibility of the president or designated representative. All locations and classes will be notified when this decision is made.

When inclement weather develops, faculty and students should NOT call the administrative staff, or radio and television stations. This only delays communications and creates extra telephone problems. A message regarding closing for both faculty and students will be on the Forsyth Tech-telephone message system by 6:30 a.m.

When a class is missed due to inclement weather, or other reasons approved by the appropriate dean, the instructor must assign an alternate instructional activity to include extra class sessions, extended class sessions or other options. This activity is to be documented on the "Alternative Instructional Activities for Missed Classes" form. The form is due to the dean within five (5) working days after the class is missed.

### **PLEASE LISTEN for ANNOUNCEMENTS from LOCAL RADIO and TV STATIONS**

## **Academic Appeals (Concerning a grade)**

652 Academic Appeal - Revised 10/20/04

Any appeal of a course grade should begin with a scheduled conference between student and instructor by the first day of a new semester. If the appeal is not resolved at this level, the student should contact and arrange for a conference with the appropriate department chair. The student has the responsibility of providing the department chair with a written letter of

appeal by the third class day of the new semester in order for the appeal to be considered. After conferencing with the department chair, if the issue is still not resolved, the student will notify the dean in writing (within two workdays of the conference) of the need for a divisional academic appeals committee. The department chair should forward the letter of appeal and supporting documentation to the dean. The dean will convene a committee (within three workdays) to hear the appeal. This committee will hear the appeal and make a final decision (within three workdays) which will be reported to the dean. Within 24 hours of receiving the information, the dean will mail the committee's decision to the student, the instructor and the department chair. The decision of the committee is final.

The letter of appeal must include:

1. Date, student's name, signature and telephone number.
2. Prefix and number of course grade being appealed.
3. Instructor's name issuing the grade.
4. Brief factual explanation of why student feels the grade is incorrect.
5. Any supporting documentation the student feels is needed to better explain student's questions as to grade determination.

For an appeal to be considered, the appropriate department chair must receive the letter of appeal no later than the third class day of the new semester.

## **Academic Standing/ Probation/Dismissal**

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To be in good academic standing, students must have earned a cumulative grade point average (GPA) of 2.0 in courses required in their program of study by the end of their first semester at Forsyth Tech. A cumulative GPA of 2.0 within their program of study must be maintained thereafter to remain in good standing. Students who do not maintain the required 2.0 cumulative GPA in courses required in their program of study will be placed on academic probation for the following semester. All students who do not earn the required GPA in the next semester will have their academic records reviewed by their respective division's academic review committee, which meets at the end of each semester. The committee may

- (a) reduce the number of credit hours the student will be allowed to carry,

- (b) require the student to repeat courses in which a low grade was earned, or
- (c) dismiss the student from the program.

The student will be notified in writing of the committee's decision, and copies of the notice will be sent to the Records Office, the division dean and the student's faculty advisor.

The following options are available to students who are dismissed from their current program of study:

- A student who is dismissed from a program of study is encouraged to see a counselor to discuss possible educational alternatives.
- A student who is dismissed from a program of study may be eligible to apply for and be admitted into another credit program of study offered by the college.
- A student who is dismissed from a program of study may re-apply for admission to that program.
- A student who has been dismissed from a program of study for academic reasons may not be eligible to continue to receive financial aid, depending upon the conditions of financial aid eligibility.

## **Appeals Process for Academic Standing/Probation/Dismissal**

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A student may appeal the decision of division academic review committees by:

1. Submitting a written request to the appropriate division dean within 24 hours after formal notification of the committee's decision.
2. The dean will convene the division academic appeals committee.
3. The division academic appeals committee will make the final decision on the matter.
4. The dean will send written notification to the student, the department chairperson and the student's academic advisor.

## **Transfer to Four-Year Colleges and Universities**

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The associate in arts (A.A.) or associate in science (A.S.) degrees are approved for transfer through the North Carolina Comprehensive Articulation Agreement.

The college transfer program is designed to provide a quality educational experience equivalent to the first two years of a four-year college program. Students who have earned the degree of A.A. or A.S. can transfer to

most public and private four-year institutions with full junior-year standing. A minimum grade point average (GPA) of 2.0 is required for acceptable transfer credit. For additional information, visit the University of North Carolina system Web site:

**[http://www.ga.unc.edu/student\\_info/caa](http://www.ga.unc.edu/student_info/caa)**

The college transfer program enables students to prepare for virtually any area of major interest and requires a minimum of four semesters. Courses are offered in mathematics; composition and literature; humanities; physical education; and the social, physical, and life sciences. Counselors and academic advisors are available to assist students in planning acceptable programs for transfer to desired colleges or universities. Counseling and Career Services maintains copies of all college transfer agreements for student review.

Technical-level credit earned in the associate in applied science (A.A.S.) degree programs at Forsyth Tech may be transferred to similar programs at other institutions. Acceptability of all technical transfer credit is determined by the institution to which students wish to transfer. Diploma credit is not transferrable to four-year institutions.

The college has two-plus-two A.A.S. agreements with local colleges and universities. Students should inquire in Counseling and Career Services for information regarding these opportunities for transfer of credit to four-year institutions.

Counseling and Career Services maintains a list of four-year colleges and universities that currently accept some or all of the credit earned in the credit programs at Forsyth Tech. However, it is the responsibility of the student to contact the Admissions Office at the receiving institution for transfer information.

# Tuition, Fees and Parking

## Tuition Fee Basis

Forsyth Tech receives funds from local, state and federal sources. North Carolina law (General Statute 115D) establishes the community college system's tuition and fees, and the charges are subject to change without notice. Tuition charges are for credit hours enrolled, and the tuition rate per credit hour applies to all regularly enrolled students.

In-State Tuition:

\$38 per semester hour

Out-of-State Tuition:

\$211 per semester hour

## Tuition and Fees for Credit Students

All tuition and fees are due and payable at the Cashier's Office. Payment deadlines are printed on the bottom of the registration forms. The following methods of payment are available:

1. In person at the Cashier's Office (2<sup>nd</sup> Floor), Allman Center, Main Campus
2. Drop box located outside of the Cashier's Office (2<sup>nd</sup> Floor), Allman Center, Main Campus
3. Our Web site: **<http://www.forsythtech.edu>** [payment by VISA and MasterCard (credit/debit cards) only]
4. Telephone registration

**Note:** Methods 2, 3 and 4 may be subject to limited operation times during registration.

Students may pay by cash, certified checks, cashier's checks or VISA and MasterCard (credit/debit cards). Personal checks will be accepted only with a numbered ID that has a picture of the student (usually a valid driver's license). Third-party, out-of-state, business, starter, counter or credit card/debit checks will not be accepted.

No person may attend classes unless the registration procedure has been completed, all tuition and fees paid and all debts to the college settled. Students enrolled for 12 credit hours are considered full-time. Students will

be charged per credit hour up to 16 credit hours.

Example:

Hours

taken	In-State	Out-of-State
10	\$380	\$2,110
12	\$456	\$2,532
14	\$532	\$2,954
16+	\$608	\$3,376

Normal tuition rates apply to courses taken in the Learning Center. Supply fees are set to meet instructional needs in certain types of courses. Some programs (credit) require a pre-admission physical examination that involves additional cost to the student.

## North Carolina Residency Status

Under North Carolina law, each person must be classified as a resident or nonresident for tuition purposes. North Carolina law (General Statute 116-143.1) requires that to qualify as an in-state student for tuition purposes, a person must have established legal residence (domicile) in North Carolina and maintained that legal residence for at least 12 months immediately prior to enrollment to be considered for classification as a North Carolina resident.

All applicants who are petitioning for in-state residency must complete a *Residency-and-Tuition Status Application Form* for further consideration and appeal. This form is available in the Admissions or Records Office (1st Floor), Allman Center, Main Campus.

## Tuition and Fees for Senior Citizens

North Carolina residents 65 and older are exempt from paying tuition, **except** for self-supporting Corporate & Continuing Education courses. However, senior citizens are responsible for paying any additional fees and expenses for credit courses.

## Student Fees

### Student Activity Fee

All program students are charged \$9 per semester/term for a student activity fee. When students pay this fee, they automatically become members of Forsyth Tech's Student Government Association. Though called an

"activity fee," these funds are used to support student clubs and social activities, student publications, athletic teams and student government expenses. For a more detailed list of the expenses covered by these fees, see the Student Life section of this catalog.

### Lab Fees

Some selected courses charge a lab fee for supplies, software and materials. These fees range from \$12 to \$65.

### Technology Fee

All program students are required to pay a technology fee each semester/term. The fee is \$10 for students enrolled in one to 11 credit hours and \$16 for students enrolled in 12 or more credit hours.

### Books and Supplies

The cost for textbooks and supplies is the responsibility of the student, and these items may be purchased at the Forsyth Tech Bookstore (lower level), Snyder Hall, Main Campus. The cost of books and supplies varies from program to program each semester. Students may wish to attend the first class before purchasing texts and materials. Purchase books online at [www.forsythtech.edu/students/bookstore.html](http://www.forsythtech.edu/students/bookstore.html).

### Uniforms

The cost for uniforms and other special apparel is the responsibility of the student, and the initial cost of these items varies for certain programs. Students should ask their department chairperson for details on these costs.

### Other Fees

No laboratory breakage or property damage fees will be charged to students. However, in case of breakage or damage due to gross negligence or maliciousness, a student will be expected to reimburse the college.

### Graduation Fee

Graduating students pay a \$10 fee for each degree, diploma and/or certificate. A \$10 non-refundable fee will also be charged to adult high school graduates.

### Transcript Fee

A \$2 fee is charged for each official transcript requested.

### Proficiency Exam Fee

A student may take a proficiency exam for a given course only once in a 12-month period. A *Request for Proficiency Exam Form* [located in the dean's

office(s)] must be completed and a \$10 non-refundable fee is charged for each proficiency exam.

## Refund Guidelines

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Program tuition and supply fees can be considered for a refund. Students must complete a *Request for Tuition Refund Form* in the Records Office when they drop class(es) and/or if class(es) are canceled. Tuition and fee refunds for program classes are subject to the following requirements:

- A 100 percent refund may be made upon request from students if students officially withdraw prior to the first day of classes of the semester as noted in the academic calendar. If Forsyth Tech cancels a course, the portion of tuition that paid for the canceled course will be refunded in full.
- A 75 percent refund may be made upon request from students if students officially withdraw from the class(es) prior to, or on, the official 10 percent point of the semester.
- Student activity fees will be refunded only when classes are canceled and students are not registered in any other class.
- Students passing proficiency examinations for courses they have registered and paid for are not eligible for tuition refunds.
- Refunds of \$5 or less will not be made except for classes canceled by Forsyth Tech.
- Tuition refunds are not transferable to other individuals.
- Late tuition refund requests will not be considered.
- Tuition cannot be held from one semester to a future semester.

## Accident Insurance

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Accident insurance covering the hours students are in school, on field trips or participating in student activities is provided to all full-time and part-time students. Student insurance is furnished by Forsyth Tech as a service to students, but it is not meant to replace students' personal coverage.

## Liability Insurance for Health Students

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All health students must purchase annual liability insurance before engaging in lab or clinical practice. The cost for the insurance varies according to the credit program and insurance carrier. Annual liability insurance coverage runs from fall semester to the next fall semester. Liability insurance fees are not pro rated. Therefore, health students who enter or re-enter during a semester other than fall will pay the annual fee currently in effect.

## Parking

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Visitors are welcome on the campus of Forsyth Tech. Campus signs indicate designated visitor parking areas. Any visitor receiving a ticket while parked in a designated visitor parking area should return it to the person or office visited. Otherwise, parking fines should be paid at the Cashier's Office (2<sup>nd</sup> Floor), Allman Center, Main Campus.

Students planning to park on campus are required to purchase a \$10 parking permit/decal at the time of registration. **This fee is not refundable. Parking permits are valid from July 1 to August 31 the following year.** Specific rules governing parking are issued with each vehicle registration and may also be found in the current issue of the *Student Handbook*.

# Student Financial Services

## General Information

The purpose of financial aid is to provide monetary assistance to eligible students who may otherwise be unable to continue their education. The college will make every effort within available financial aid resources to assure that qualified students will not be denied the opportunity to attend college because of a lack of adequate funds to help meet educational expenses. Although students and students' parents are primarily responsible for financing a college education, financial assistance may be available to students in the form of federal and state grants, scholarships, work study programs and loans. Students who realize they will not be able to meet college expenses should take the early initiative in seeking financial assistance.

Students may apply for financial aid annually by completing the Free Application for Federal Student Aid (FAFSA), which is available after January 1 of each year for the following academic year. Information and applications may be obtained from Student Financial Services (1<sup>st</sup> Floor), Allman Center, Main Campus. About three weeks after submitting the application either by mail or online, students will receive a Student Aid Report (SAR) from the federal processor. On the application, students must list Forsyth Tech as the institution they plan to attend so that the college will also receive a copy of the SAR. At that time, Student Financial Services will inform students of any required documentation to complete students' financial aid files.

It is recommended that applications for student aid at Forsyth Tech be submitted no later than May 1 preceding the academic year for which aid is requested. Applications submitted after May 1 will be processed; however, funding for many programs is limited. Late applicants may find most funds already obligated.

Financial aid will not be awarded to any student until all admissions requirements are met for students to receive approval in an eligible program.

Most one- and two-year programs of study offered at the college are eligible for students to receive financial aid. Students enrolled in some certificate programs, the developmental education program or as special credit

students are not eligible for financial assistance through Student Financial Services. Students are advised to contact Student Financial Services if they are unsure as to whether their program of study is an eligible program for which to receive financial assistance.

## Eligibility for Aid

Most awards are based on financial need. This is determined by subtracting the expected family contribution (EFC) as reported on the Student Aid Report (SAR) from students' educational cost of attendance. Other requirements may be established by the agency or individual making the funds available.

Students have an obligation to maintain the satisfactory academic progress requirements as defined by the U.S. Department of Education and this institution for financial aid recipients. Each financial aid recipient is provided a copy of the policy upon notification of award. A copy of the requirements can also be obtained from Student Financial Services. Failure to maintain academic progress will result in the termination of financial assistance. Eligibility may be regained by re-establishing satisfactory academic progress.

Financial aid recipients must notify Student Financial Services of any change in enrollment status, program of study or address. Financial aid from all other sources must be reported as well to prevent overawards.

## Satisfactory Academic Progress

Federal regulations require that students receiving financial assistance must maintain satisfactory academic progress. To maintain satisfactory academic progress, three rules must be followed:

1. A student receiving **federal** financial aid cannot exceed 150 percent of the normal length of time it takes to complete a program.
2. A student receiving **federal** financial aid must complete (with a grade of A, B, C, D or F) at least 67 percent of all credit hours attempted.
3. A student receiving **any** financial aid must maintain at least a 2.0 cumulative grade point average.

Students are advised to contact Student Financial Services if they have questions regarding satisfactory academic progress or for a complete copy of the policy.

## Disbursement of Aid

Students approved to receive financial assistance will

receive an award letter detailing the types and amounts of aid awarded for the entire academic year. All financial aid recipients are notified in writing of registration procedures and are provided a disbursement schedule of all funds for the academic year.

Some diploma and certificate programs that do not transfer to an associate's degree are subject to the federal regulation of clock/credit hour conversion. As a result of the formula used, award amounts for federal financial aid funds for students in these programs will be adjusted to meet the guidelines. Therefore, awards may be reduced depending on the amount of credit hours students register for each semester.

### **Refund Policy - Financial Aid**

Students receiving financial aid are responsible for being familiar with the information found in the *College Catalog* regarding tuition refund guidelines. Also, students receiving federal financial aid are subject to the Return of Title IV Funds Policy, as described below.

### **Return of Title IV Funds Policy**

Students who receive federal financial aid are expected to complete each term. All students receiving federal financial aid who totally withdraw before the 60 percent point of the term will have to pay the "unearned" portion of federal financial aid funds received back to the federal government or lose financial aid eligibility. Students who initiate withdrawal procedures after completing 60 percent of the term are deemed to have earned 100 percent of the federal financial aid received for that term and no repayment will be required.

For a more complete information sheet on the Return of Title IV Funds Policy, including college procedures and sample refund calculations, students may contact Student Financial Services (1<sup>st</sup> Floor), Allman Center, Main Campus.

**Note:** All policies and regulations pertaining to federal and state aid are subject to change in order to meet regulations as changed by either the U.S. Department of Education, the state or other entities.

## **Grants**

Students are encouraged to contact Student Financial Services (1<sup>st</sup> Floor), Allman Center, Main Campus, for additional information and application criteria for the

grants listed below:

### **Federal Pell Grant**

The Federal Pell Grant program is a federal entitlement program designed to provide financial assistance to eligible students who attend post-secondary educational institutions. Students may apply by completing the Free Application for Federal Student Aid (FAFSA). Applications may be obtained from Student Financial Services. Students should allow at least six weeks for processing.

### **Federal Supplemental Educational Opportunity Grant (FSEOG)**

The FSEOG is a program funded by federal and institutional matching funds and is awarded to the neediest students who are eligible for the Federal Pell Grant and have a \$0 expected family contribution (EFC) on the Student Aid Report (SAR).

### **North Carolina Community College Grant (NCCCG)**

The NCCCG program is funded by the state to provide need-based aid to students who are North Carolina residents. Students must be in an eligible credit program and be enrolled in at least six credit hours per semester. Students must complete the FAFSA, have a valid expected family contribution (EFC) within a specific range and meet all other eligibility requirements.

### **North Carolina Student Incentive Grant (NCSIG)**

The NCSIG is a program administered by the College Foundation, Inc. from state and federal funds provided through the North Carolina State Education Assistance Authority for students who demonstrate substantial financial need. It is open to North Carolina residents attending Forsyth Tech full time who complete the FAFSA by March 15 and meet all other eligibility requirements.

### **North Carolina Community College Child Care Grant Program**

This state-funded program assists student-parents, with child care expenses for their children ages 0-12 in facilities that are licensed by the state of North Carolina. Credit program students who are enrolled half time and has demonstrated financial need are eligible to apply for this program.

## **North Carolina Targeted Assistance Program**

The North Carolina Targeted Assistance Program provides financial aid to students who enroll in low enrollment programs that prepare them for high demand occupations. This assistance is targeted to students who may not qualify for other need-based assistance.

## **Work Programs**

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Students are encouraged to contact Student Financial Services for additional information and application criteria for the work programs listed below:

### **Federal Work Study Program (FWS)**

The FWS program is a federally-supported program with institutional matching funds through which students, primarily from low income families, are given positions for part-time employment from 10 to 20 hours per week. Students must complete the FAFSA, maintain satisfactory academic progress and meet all other requirements to be eligible for the program.

**FWS** jobs are available in many academic and administrative departments on campus.

**Community Service FWS** jobs are available on West Campus and at other sites in the local service area and involve tutoring special needs and elementary school students in reading and math skills. These positions may also include assisting disabled students with their classes on Main Campus. The Community Service FWS positions are paid a slightly higher wage than FWS positions due to the responsibilities involved, as well as to support transportation expenses that may be incurred in traveling to West Campus and other sites to work.

## **Loans**

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Students are encouraged to contact Student Financial Services for additional information and application criteria for the loans listed below:

### **North Carolina Community College Loan (NCCCL)**

The NCCCL program is funded by the state to provide need-based financial assistance funds for short-term, no-interest loans. These funds are limited to continuing students who have a 2.0 cumulative grade point average (GPA), are enrolled in at least six credit hours, are in an eligible credit program and meet all other eligibility requirements.

## **North Carolina Nurse Education Scholarship/Loan Program (NESLP)**

The NESLP was designed to address the shortage of trained nurses practicing in North Carolina. Funds are available for study in nurse education programs located in North Carolina that lead to a degree (ADN) or a diploma (PN). Funding is contingent upon appropriations by the General Assembly of North Carolina. All scholarships/loans made from this program are based on demonstrated financial need.

### **North Carolina Student Loan Program for Health, Science and Mathematics (HSM)**

This program is administered through the North Carolina State Education Assistance Authority to provide funds to students enrolled in a wide range of eligible programs of study for the enhancement of the state's health care delivery system and educational institutions.

### **Nurse Scholars Program (NSP)**

The NSP is a competitive scholarship/loan program administered through the North Carolina State Education Assistance Authority. Financial need is not a criterion. An 11-member Nurse Scholars Commission, created by the General Assembly of North Carolina, developed the selection criteria and the method of selection and annually selects recipients on a statewide basis. The deadline for submitting applications to the state is usually May 1 of each year.

### **Sloan S. Sherrill Nursing Loan Fund**

The Sloan S. Sherrill Nursing Loan is an interest-free loan made through the college for second-year associate degree nursing students who demonstrate financial need.

## **Scholarships**

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Students are encouraged to contact Student Financial Services for additional information and application criteria for scholarships.

### **Adult High School/GED**

- The **Forsyth Technical Community College Adult High School Graduate Scholarships** are awarded annually to students who have graduated from the Forsyth Technical Community College adult high school program.
- The **Forsyth Technical Community College**

## **General Education Development (GED)**

**Graduate Scholarships** are awarded annually to students who have the highest scores in the Forsyth Technical Community College GED program.

## **Business Information Technologies**

- The **Forsyth-Stokes-Davie Chapter of the North Carolina Society of Medical Assistants Academic Scholarship** is awarded to a full-time student with the highest grade point average (GPA) in the second year of the medical assisting program.
- The **Integon Scholarship** is awarded to a student in office systems technology who has at least a 2.3 GPA.
- The **PICA/Weese Scholarship** is awarded annually to an outstanding student in graphic arts and imaging technology.
- The **Sandra Lea Johnson Memorial Scholarship** is an academic scholarship awarded annually to an outstanding student entering the second year of office systems technology.
- The **Smart Start Scholarships** are awarded by Smart Start of Forsyth County to students in the early childhood program with at least a 2.5 GPA.
- The **Clara K. Martin/Winston-Salem Soroptimist Club Scholarship** is an academic scholarship awarded to the female with the highest GPA entering the second year of accounting.
- The **Tom Staley Memorial Scholarship** is awarded annually to a student in the second year of business administration who has at least a 3.0 GPA.
- The **Forsyth Tech Car Show Scholarships** are awarded to students in the automotive systems technology, autobody repair, and heavy equipment and transport technology diploma programs.
- The **Jerry W. Hendrix Memorial Scholarship** is awarded annually to a second-year student in either the automotive systems technology or automotive systems technology/race car performance programs with at least a 3.0 GPA.
- The **Marshall P. Johnston Scholarship** is a perpetual scholarship available to an automotive systems technology student.
- The **Randall R. Jones Scholarship** is an academic scholarship awarded to the daytime machinist technology student with the highest GPA.
- The **Mary Kate Dixon/Winston-Salem Garden Club Scholarship** is an academic scholarship awarded annually to an outstanding student entering the second year of horticulture technology.
- The **Modern Machine Scholarship** is awarded annually to a deserving student in welding technology and is based on academic ability and need.
- The **National Tooling and Machining Association Scholarship** is an academic scholarship awarded to the full-time evening machinist technology student with the highest GPA.
- The **Dack Reeves Memorial Scholarship** is awarded to students in the welding diploma program.
- The **RJR Archer Scholarships** are academic scholarships for students in manufacturing engineering technology, electronics engineering technology, and mechanical engineering technology/drafting and design.

## **Engineering Technologies**

- The **American Society for Quality Scholarship** is awarded to a student in the second year of manufacturing engineering technology who has at least a 3.0 GPA.
- The **Audubon Garden Club Scholarship** is awarded to an outstanding student in horticulture technology.
- The **R. D. Boyer Scholarship** is awarded annually, based on financial need, to a student enrolled in the air conditioning, heating and refrigeration technology; electrical/electronics

technology; plumbing; or welding technology diploma programs and pursuing a career in the construction occupations.



## **Financial Need**

- The **American Association of University Women (AAUW) Scholarships** are awarded to two female students in the second year of any A.A.S. degree program with a minimum 3.0 GPA and demonstrating financial need.

- The **Fred M. and Marjorie P. Crouch Memorial Scholarship** is awarded annually to a student who demonstrates financial need.
- The **Mary Ann Young Memorial Scholarship from the Forsyth-Stokes-Davie Chapter of the North Carolina Society of Medical Assistants** is a need-based scholarship awarded to a full-time student who exhibits academic excellence and financial need in the second year of the medical assisting program.
- The **Forsyth Technical Community College Bookstore Endowment Scholarships** provide need-based tuition and/or book assistance and emergency funds for those students demonstrating financial need. Academic scholarships for certain credit programs are provided annually from this fund as well.
- The **Friends of the College Scholarship** is a need-based scholarship for all eligible programs.
- The **Norman C. Gaddis Scholarship** is sponsored by the Student Government Association for students eligible for financial aid when funds are not available from other sources.
- The **Bob H. Greene Scholarship** provides emergency assistance for tuition/fees or books/supplies to students who demonstrate a financial need.
- The **Louise G. Wilson Scholarship** is available to poverty-level Forsyth County residents who are accepted or enrolled in diploma or technical credit programs.

#### **FORSYTH TECH FOUNDATION SCHOLARSHIPS (Endowed)**

- The **Terry Alexander Memorial Scholarship** from the Clemmons Rotary Club is awarded to a full-time resident of Forsyth County who has at least a 2.5 GPA and is based on a combination of academic ability and financial need. Preference is given to seniors at West Forsyth High School.
- The **Don Angell Nursing Scholarship** is awarded annually to associate degree nursing or practical nursing students. Priority is given to employees of Angell Care, Inc. and their dependents.
- The **John P. Arrowood Sr. Memorial Scholarship** is awarded to a high school or GED

graduate who is enrolled in either the air conditioning, heating and refrigeration; electrical/electronics technology; plumbing; real estate; or welding diploma programs, the architectural technology A.A.S. degree program or the real estate appraisal certificate.

- The **Branner Dixon Baldwin Scholarship** is awarded to a student enrolled in practical nursing. It is based on need, academics and references.
- The **Mary B. Lauerman Memorial Scholarship** is an academic scholarship awarded annually to the full-time student with the highest cumulative GPA entering the second year of associate degree nursing.
- The **Lucent Technologies Pioneers Scholarships** are awarded to full-time students who are North Carolina residents having at least a 2.0 cumulative GPA and who are enrolled in an eligible credit program.
- The **Catherine Leigh Kiser Marshall Scholarship** is awarded annually to an older student who demonstrates financial need, and has a 2.8 GPA in the associate degree nursing program. Preference is given to a single parent.
- The **Steven R. Moser Memorial Scholarship** is awarded to a student in paralegal technology who demonstrates financial need and maintains a 3.0 GPA.
- The **Hilda R. and William H. Moser Scholarship** is awarded to a student in paralegal technology who demonstrates financial need and maintains a 3.0 GPA.
- The **Wachovia General Scholarship** is awarded annually to a student who demonstrates a financial need.

#### **OTHER FOUNDATION SCHOLARSHIPS (Non-Endowed)**

- The **BB&T General Scholarship** is awarded annually to a student who demonstrates a financial need.
- The **Gerald L. Eggert Memorial Scholarship** is awarded to a student enrolled in the fifth semester of the radiation therapy program with at least a 3.0 cumulative GPA.

- The **Cheryl Fatzinger/PENTA Scholarship** is awarded based on need to a student enrolled in the medical assisting program with at least a 3.0 cumulative GPA.
- The **International Business Scholarship** is awarded bi-annually, based on need, to students in business administration/international business who are enrolled in at least nine credit hours.
- The **Meadowbrook School Scholarship** is awarded to a student graduating from the Meadowbrook School and planning to attend Forsyth Tech.
- The **Reynolds-Calvert Scholarship** is awarded to a single mother who has financial need, maintained a "B" average during the first semester of study and is beginning the second semester.
- The **Medical Alliance of the Piedmont - Allied Health Awards** are scholarship funds awarded to students in allied health programs.
- The **Medical Alliance of the Piedmont Scholarships** are awarded to students entering associate degree nursing and may be renewed for the second year of the program.
- The **Jane Gaither Murray Scholarship** is awarded annually to a deserving student entering associate degree nursing.
- The **Pilot Club-McPhail Fund Scholarship** is awarded annually, based on financial need, to a female student in associate degree nursing.
- The **Mr. and Mrs. Henry E. Snyder Sr. Scholarships** are need-based funds for students in all programs. Priority is given to males in allied health programs.

### Health Technologies

- The **American Legion 40 and 8 of Winston-Salem Scholarships** are need-based awards to students enrolled in associate degree nursing.
- The **American Legion Ladies Auxiliary Scholarship** is awarded annually to a student who has demonstrated a financial need and is enrolled in associate degree nursing.
- The **Lettie Pate Whitehead Foundation, Inc. Scholarships** are awarded annually to female nursing and allied health students who have demonstrated a financial need.

- The **Don Angell Nursing Scholarship** is awarded annually to associate degree nursing or practical nursing students. Priority is given to employees of Angell Care, Inc. and their dependents.
- The **Lynne Breedlove O'Roarke Memorial Scholarship** is an academic scholarship awarded annually to an outstanding student entering the second year of radiography.

- The **Rufus Dalton Memorial Scholarships** are need-based funds awarded to students in associate degree nursing and practical nursing.

- The **Forsyth Medical Center Auxiliary Volunteers Scholarships** are awarded to second year Health Technologies Division students who have at least a 2.0 GPA and are enrolled in at least six credit hours.

- The **Allen and ParaLee James Memorial Scholarship** is awarded annually to a student enrolled in the certified nursing assistant II class with priority given to employees of the Homestead.

### Miscellaneous

- The **Forsyth Technical Community College Alumni Association Scholarship** is awarded to a student with a minimum 2.5 GPA.
- The **Forsyth Technical Community College International Student Scholarship** is awarded annually to an international student enrolled in a degree or diploma program with at least six credit hours.
- The **William H. Andrews/Housing Authority of Winston-Salem (HAWS) Scholarships** are awarded to students who are residents of public housing to encourage their completion of a college education.
- The **N.W. Mitchell - Piedmont Federal Savings and Loan Scholarships** are awarded annually, based on merit, to two first-year students enrolled full-time in any A.A.S. degree program. They are renewable for the second year of the program and awarded through the Winston-Salem Foundation.
- The **R.J. Reynolds Foundation Vocational/Technical Scholarships** are awarded annually to students enrolled full time who

are eligible children of employees of R.J. Reynolds Tobacco Holdings, Inc. and R.J. Reynolds Tobacco Company. This is a competitive award program.

- The **Sprint Scholarships** are awarded annually to two students. Priority is given to minority and/or unemployed students.
- The **Tommarrow E. Cuthrell Memorial Scholarship** is awarded to a full-time second-year college transfer student who has a minimum of 2.5 cumulative grade point average.
- The **Wachovia Technical Scholarships** are awarded annually, based on need and scholastic promise, to three students who are enrolled full-time in the second year of a technical program.
- The **Winston-Salem/Twin City Kiwanis Clubs Scholarships** are awarded annually to graduating high school seniors who plan to attend Forsyth Tech.
- The **1990 Student Government Association/Tom Mayerchak Scholarships** are awarded annually to deserving students entering the second year of a technical or college transfer program with a minimum 3.0 cumulative grade point average. Priority is given to full-time students.

**Note:** In addition to the scholarships listed above, there are various individuals and organizations who contribute money yearly for scholarships to needy students. Most of the money available is not restricted. However, some of the scholarships are limited to individuals enrolled in certain credit programs. Contact Student Financial Services for specific information regarding all available federal, state, institutional and local (outside-sponsored) financial aid funds.

**All financial aid awarded is based on available funds and is contingent upon the receipt of those funds by the college.**

## Other Sources of Aid

Other sources of aid not administered by Forsyth Tech are available for eligible students. Interested students should apply with the appropriate agency. Student Financial Services can assist students in making the initial contact with the sources listed below:

- Americorps National Service Awards
- Crosby Scholars Program

- Datatel Scholars Foundation Scholarship
- Dependency and Indemnity Compensation (Veterans Administration Educational Benefits)
- Experiment in Self-Reliance (ESR)
- Lewis-Gale Foundation Scholarships
- North Carolina Early Childhood Credential (T.E.A.C.H.) Scholarship Program
- Local Hospital Scholarship/Loan Programs
- North Carolina National Guard Tuition Assistance Plan (TAP)
- North Carolina Teaching Assistant Scholarship/Loan Program (TASL)
- North Carolina Division of Veterans Affairs (State VA Scholarship)
- North Carolina Vocational Rehabilitation
- Professional Women of Winston-Salem Scholarship
- Sallie Mae Foundation Scholarships
- Winston-Salem Foundation
- Workforce Investment Act (WIA)

This is not an exhaustive list. Please contact Student Financial Services for help in seeking a wide variety of financial aid resources to assist in paying for college.

## Veterans' Benefits

Most programs of study offered at Forsyth Tech are approved for the training of persons eligible for benefits administered by the U.S. Department of Veterans Affairs (VA). Students eligible for VA benefits should contact Student Financial Services, (1<sup>st</sup> Floor), Allman Center, Main Campus, to find out if a program is approved and to apply for their VA educational benefits.

The Admissions Office will help applicants select a program of study and explain the procedures for enrolling at Forsyth Tech. The admissions process will require an **Application Form**, testing and the receipt and evaluation of transcripts from all prior training in order for students to be approved for enrollment.

Students who are qualified to receive VA benefits will fall under one of the following four classifications:

- Chapter 30 veterans who paid \$1,200 into their education fund while in active duty service;
- Chapter 31 veterans who have a service-connected disability(ies) rated by the VA at 10 percent or more;
- Chapter 35 spouses or dependents of veterans who are totally disabled for work purposes due to a service-related disability or
- Chapter 1606 veterans currently active in the selected reserves or National Guard.

After registration, an enrollment certification will be transmitted by Student Financial Services to the Veterans Affairs Regional Office for processing. Tuition and fees must be paid by the student upon registering for classes. \*The college does not postpone payment of tuition and fees until the student receives payment of their VA benefits. Monthly VA benefits will be paid directly to the student.

\*(Exception: Students who receive VA benefits under Chapter 31 are allowed to charge their tuition and fees upon registering for classes.)

Students receiving VA benefits are responsible for being familiar with the information found in the *Student Handbook*, *College Catalog* and all veterans' brochures and information obtained from Student Financial Services.

**Hours of Pay**

VA educational benefit payments are issued monthly and are based on training for a prescribed number of credit hours per semester, as follows:

Full-time .....	12 or more credit hours
3/4 time .....	9-11 credit hours
1/2 time .....	6-8 credit hours
Less than 1/2 time .....	1-5 credit hours

**Standards of Progress**

Federal regulations require that students receiving veterans' educational benefits must maintain standards of academic progress and conduct.

**Satisfactory Academic Progress**

The Academic Standing section of the *Student Handbook* and *College Catalog* describes the basic academic requirements for all students. A 2.0 cumulative grade point average (GPA) must be maintained, and a probationary period of not more than one semester is permitted. Progress is reviewed at the end of each semester.

If a student receiving VA benefits is classified as making unsatisfactory progress, the Veterans Administration will be notified and benefits will be terminated. Termination will take place effective with the posting of grades at the end of the probationary semester. Recertification will not be made until satisfactory progress has been established by the student regaining a 2.0 GPA. Students should request recertification from Student Financial Services following the semester in which satisfactory progress has been regained.

**Satisfactory Conduct**

Conduct in accordance with the Student Conduct and Responsibilities section of the *Student Handbook* is expected of all students. Dismissal of a student receiving VA benefits for unsatisfactory conduct will be reported to the Veterans Administration, and benefits will be terminated as of the date of the student's dismissal from class(es).

**Satisfactory Attendance**

All students are expected to maintain satisfactory attendance as defined in the Academic Information section of the *College Catalog*. Students receiving VA benefits who are dropped from courses for nonattendance or poor attendance, or those who withdraw, will be terminated or have their hours reduced effective the last day present in class. Unless mitigating circumstances are involved, the Veterans Administration may determine this termination or reduction to be an overpayment retroactive to the beginning of the semester.

**Punitive/Nonpunitive Grades**

Federal regulations prohibit payment of VA benefits for grades that do not count as progress toward graduation. Audits are not payable. A grade of withdrawal failing (WF) is punitive because it counts as an F in the grade point average (GPA) computation. A grade of withdrawal (W) or withdrawal passing (WP) is nonpunitive because it does not count in the GPA computation. If a student receiving VA benefits drops a class that reduces training time, the Veterans Administration will be notified. If a student receiving VA benefits drops a class and receives a punitive grade, payments will be adjusted effective the last date the class was attended. If a student receiving VA benefits drops a class and receives a nonpunitive grade, payments will be adjusted effective retroactive to the beginning of the semester. This adjustment may result in an overpayment, unless mitigating circumstances are documented.

# Student Services and Support Services

## Counseling and Career Services

Counseling and Career Services (1<sup>st</sup> Floor), Allman Center, Main Campus maintains a professional staff that is available both days and evenings to assist with academic, personal, career and employment issues. Assistance is provided to facilitate appropriate choices and necessary adjustments associated with being a student and making a successful transition into the work place.

Counselors serve as consultants to faculty and staff in helping to meet the educational needs of students. A student experiencing academic or personal difficulties may meet with a counselor. Students needing additional services may be referred to appropriate community agencies or resource persons.

The counseling staff adheres to the ethical standards of the American Counseling Association and the National Board for Certified Counselors. All discussions and consultations are confidential; however, exceptions may be made when students present a danger to themselves or others, if students disclose that they are involved in certain illegal activities or under subpoena by court.

Career exploration and planning assistance is provided to help individuals identify career goals. Group intake sessions evaluate the needs of participants using a variety of inventories to help explore interest areas. Follow-up appointments provide personalized information. In addition, occupational information is available to assist in exploration of career options. Other sources of helpful information in such areas as career/employment, mental health and educational planning are available under Counseling and Career Services at <http://www.forsythtech.edu>.

Students and graduates who register with Career Services have access to job listings received from Triad employers.

In addition, Career Services sponsors job fairs and provides the following employment assistance: help in writing resumes, cover letters and interview preparation. Handouts and resource materials on job search skills and job market information are available in the Career

Services Office. Instructions for writing a resume can be found under Counseling and Career Services Web pages at <http://www.forsythtech.edu>.

## Services for Students with Disabilities

Forsyth Technical Community College is invested in full compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA). The Disability Services Office at the college ensures that the programs and facilities of the college are accessible to all students. The college focuses on the student as an individual and works toward equal opportunity, full integration into the campus environment, physical accessibility, and the provision of reasonable accommodations, auxiliary aids and services to students.

If you are a student with a disability and require the services of interpreters, readers, notetakers or need other reasonable accommodations, you have the responsibility to request these services from the Disability Services Office since federal law prohibits the college from making pre-admission inquiries about disabilities. This office is located in the Testing Center (1<sup>st</sup> Floor), Allman Center, Main Campus. In order to assess each disabled student's needs and to provide the necessary support services, professional documentation of a disability or disabilities must be furnished to the Disability Services Office. Documentation must be current. Information provided by a student is voluntary, and appropriate confidentiality is maintained.

Students who need assistance for academic services should call the director of Testing/Disability Services/ADA at (336) 734-7248. Services are designed and developed on an individual-needs basis, and students may elect to use any or all of the services appropriate to their needs at no charge. An appointment with the director of Testing/Disability Services/ADA is required to discuss individual accommodations.

Also, the college has a telecommunications device for the deaf (TDD/TTY). The number is (336) 723-3411.

## James A. Rousseau II Minority Male Mentoring Program

The James A. Rousseau II Minority Male Mentoring Program is open to all minority male students at

Forsyth Tech. Students meet monthly with members of the local business community, faculty and staff at Forsyth Tech. The goals of the program are to:

- Provide an open forum for minority males to discuss issues and concerns with professionals and mentors.
- Promote goal-setting and positive choices in decision-making.
- Improve the retention and graduation rates of minority males at Forsyth Tech.
- Enhance communication skills, self-discipline, motivation and self-concept.
- Develop job-seeking skills and promote work force preparedness.
- Provide practical knowledge of budgeting, investments, savings and financial planning.

For more information about this program, contact the Career Services Office (1<sup>st</sup> Floor), Allman Center, Main Campus at (336) 734-7343.

## Shugart Women's Center at Forsyth Tech

### Mission

The overall mission of the Shugart Women's Center (SWC) is to promote the educational, personal and professional development of women attending Forsyth Tech by providing advocacy, referrals, information and resources to assist in achieving positive outcomes.

### About the Center

Although the primary focus is on female students, the SWC is open to all students enrolled at Forsyth Tech, as well as faculty and staff. The center addresses many issues including educational awareness, economic wisdom, intervention and prevention, and student family support services. Our comfortable lounge, library resource area, administrative staff and support team provide a welcome and supportive environment for Forsyth Tech's diverse student population. Programs that are offered through the center include:

- **Counseling and Referrals** - The director of the SWC is available to provide counseling and referrals based on individual needs. Information gathered during counseling or referrals remains confidential. One of the most critical objectives of this service is to match the individual with the appropriate agency or organization that will suit his or her need. The SWC also has a collection of brochures and information

about community agencies and programs. Some organizations that collaborate with the SWC to provide counseling or other services are:

- Battered Women's Services
- Department of Public Health
- Department of Social Services (DSS)
- Experiment in Self-Reliance (ESR)
- Family Services, Inc.
- Forsyth Tech (various departmental services)
- Hope Ridge Behavioral Health Center
- Housing Authority of Winston-Salem
- Job Link
- North Carolina Council for Women
- Winston-Salem/Forsyth County Council on the Status of Women

- **Library** - The SWC houses a substantial collection of more than 550 donated books, tapes and magazines. Materials in the library may be checked out by students and staff. The comfortable lounge area is available for students to study, or just relax. The area may also be utilized for small group meetings. A computer with Internet access is also available for students needing to complete assignments or do research.

- **Workshops and Displays** - Workshops are scheduled by the SWC on a variety of subjects during each semester. Information presented provides guidance for handling issues and challenges that students face at work, home and school. Open forums are also conducted to allow students to ask questions and voice their opinions. Displays are set up to inform and educate students, faculty and staff of Forsyth Tech.

- **Enhancement Center** - The Enhancement Center is stocked with casual and professional clothing for female students in need. Items are donated by individuals and organizations. Clothes distributions are done throughout the year.

For more information about this program, contact the Shugart Women's Center (2<sup>nd</sup> floor), Hauser Hall, Main Campus at (336) 734-7280.

## Learning Resources

### Library

The Library's collection includes more than 39,000 books and audio-visual software. Most materials may be

checked out for two weeks. Although no fines are charged, students are responsible for replacing books that are lost or damaged. Until replacement is made, library privileges will be revoked, the student will not be permitted to register and the student's record will be sealed. Members of the library staff are always available to help students locate and use the library resources. Internet access and NCLive are available to library users.

Located on the 1<sup>st</sup> floor of Ardmore Hall, Main Campus, the library is open Monday through Thursday from 7:30 a.m. until 9 p.m. and on Friday from 7:30 a.m. until 3 p.m.; Saturday hours are from 9 a.m. to noon, except during the summer term.

### **Learning Center**

Located on the 1<sup>st</sup> floor of Ardmore Hall, Main Campus, the Learning Center offers a variety of services and programs designed to assist both faculty and students.

**Tutoring Services** - Tutoring services offer several methods for helping students who are having academic difficulties. Tutoring is done one-on-one or in small group sessions two to three times a week by tutors, primarily fellow students, who have received training. Assistance is offered in virtually every academic course offered on Main Campus. The Learning Center has math and science tutoring centers, all staffed by well-qualified lab assistants. Students can use these centers on a drop-in basis. Both tutoring and tutoring center help are free to students, but students must be referred by their instructor. In addition, the Learning Center staff conduct a variety of workshops on learning skills. The various tutoring services share the goal of increasing retention rates while helping Forsyth Tech students become independent, lifelong learners.

**Computers for Writing Papers** - The Learning Center has PCs with Internet access for students to write class papers, reports, assignments, etc. This free service is available to any enrolled student doing class-related work.

An additional computer lab, located in Room 246, Hauser Hall, Main Campus is available providing support to the students of the Business Information Technologies Division. For more information on the Business Information Technology lab call (336) 734-7571.

**Placement Test Preparation** - Most people entering Forsyth Tech are required to take the placement test. To help these future students, the Learning Center offers worksheets, practice tests and tips on test taking. This service is especially helpful for people returning to school after a long absence.

**Services for Instructors** - The Learning Center has several services for instructors. The center can administer make-up tests for instructors whose students miss a test; it houses and distributes the materials for the telecourses, and it can provide special accommodations to help instructors comply with the Americans with Disabilities Act (ADA).

### **The Winston-Salem Teachers Academy**

Established in 2002, the Winston-Salem Teachers Academy exists to provide assistance and guidance to prospective teachers for the Forsyth and Stokes County schools. The purpose of the Academy is to provide a center for information, credential evaluation and referral services to students contemplating teaching careers in grades K-12. The goal is to provide a single location for information and assistance that will result in a greater pool of unconditionally licensed teachers for the two counties served by the college. Services include general information regarding pathways into teacher education programs for students pursuing a bachelor's degree, guidance for non-teaching degree individuals and currently employed lateral-entry teachers who are seeking licensure.

At Forsyth Tech, the following degrees are suitable pathways into teacher education programs at four-year institutions:

- Pre-Major in Elementary, Middle Grades and Special Education
- Pre-Major in Biology and Biology Education
- Pre-Major in Chemistry and Chemistry Education
- Pre-Major in Math Education
- Early Childhood Education - Teacher Associate
- Early Childhood Education - Special Education

The academy is a collaborative effort of Forsyth Tech, Winston-Salem State University and the Winston-Salem/Forsyth County Schools and is located at Forsyth Tech's Woodruff Center on Lansing Drive. For more information, call (336) 734-7972.

## Other Services

### Bookstore

Forsyth Tech operates two college bookstores as a service to students, faculty and staff. The Main Campus Bookstore (lower level), Snyder Hall offers a full line of traditional college store merchandise, including textbooks, school supplies and other course-related material, plus first-quality backpacks, emblematic apparel, Forsyth Tech gift items and educationally priced computer software. The West Campus Bookstore, Room 10, carries an abbreviated selection of the above materials, focusing on course materials for adult high school, corporate and continuing education, adult basic skills, English as a second language and other West Campus programs.

The Bookstore stocks as many used texts as possible at the beginning of each semester, and students have the opportunity to sell their used books at the end of each semester. With receipt, credit students may receive full refunds for course books during the first 10 class days only.

Corporate & Continuing Education textbooks may be returned, with receipt, for full refunds prior to the first day of class.

Hours of operation of the two college bookstores are posted at each location.

Books may also be purchased on the Forsyth Tech bookstore Web site: <http://www.forsythtech.edu/students/bookstore.html>

### Book Return Policy

- Last day of returns: 10<sup>th</sup> class day (posted in the store).
- No refund without receipt.
- No cash refunds on grants.
- Books must be unmarked and in good condition.
- New books with names written inside will be refunded at used book price, even if the course is canceled.

### Housing Information

Since Forsyth Tech has no resident halls, students must make their own housing arrangements. Housing and apartment information may be obtained from Counseling and Career Services (1<sup>st</sup> Floor), Allman Center, Main Campus.

## Health Services

Limited health services are provided through the Public Safety Office. First aid supplies are located in shop areas; however, injuries requiring more than minor first aid will be treated in the emergency room of either Forsyth Medical Center or Wake Forest University Baptist Medical Center.

### Food Services

Tiger's Grill, located on the lower level of Hauser Hall, Main Campus offers breakfast and lunch daily, 7:30 a.m. - 1:30 p.m. and dinner Monday through Thursday 4 - 7:30 p.m. Summer term hours may vary. Daily lunch menus include a hot bar, salad bar, made-to-order deli-style sandwiches and grill. For information about meal plans, please contact the food services manager at (336) 734-7338.

Vending services are available in Snyder Hall, Allman Center, Parkway Building, Carolina Building and Greene Hall (all located on Main Campus); the Swisher Center; West Campus; and the Woodruff Center.

### Lost and Found

The Public Safety Office handles lost and found articles on the Main Campus. On other campuses, the Information/Registration Centers handle lost and found articles. All lost articles of value should be reported to the Public Safety Office.

### Student Center

A student center is located on the lower level of Snyder Hall, Main Campus. Students are invited to use the center as a place to meet, talk, eat and relax.

## Campus Information

### Telephone Calls to Students

Forsyth Tech does not have the facilities to forward general telephone messages to students and will not do so except in the case of an emergency. Emergency calls should be directed to Counseling and Career Services, Public Safety Office or appropriate dean's office. Those calling in an emergency will be asked to state the nature of the emergency and to give their name and a return telephone number. Forsyth Tech staff will then make every effort to relay this information to students.

The policy of Forsyth Tech is not to give out identifying information about students to telephone callers and/or unidentified persons without the permission of the

student (Family Educational Rights and Privacy Act). The Records Office only handles inquiries concerning students' records.

## Use of Facilities

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- The buildings and their contents exist solely for the education of Forsyth Tech's adult population, and the use of these facilities for any other purpose is strictly prohibited.
- Smoking is prohibited in all classrooms, laboratories, shops and auditoriums.
- Animals are prohibited inside the buildings (except for seeing eye dogs for the visually impaired). Any animal on the campus grounds must be on a leash in compliance with the City of Winston-Salem Leash Law (City Code Ordinance chapter 6-16 Section 3-18).
- Children are not allowed in classrooms or shop areas during class sessions, nor may they be left unattended in the library, canteen areas or on campus grounds.

# Student Life

## Student Government Association (SGA)

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The Student Government Association is composed of all current Forsyth Tech students and is served by the Student Government Council (SGC). The SGC consists of the student government officers, Alpha Mu Beta fraternity members and other SGC representatives. Participating students are people who are interested in developing leadership skills to be used in their careers in business, industry or government. Students learn to work together to accomplish a wide range of projects that have a high impact on the college and community.

## Student Government Council

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The Student Government Council (SGC) is intended to be a laboratory of development for motivated students. People who get involved find themselves learning, growing and doing things they never thought they could do. This is a program in which students can test their education, experiment with social and group dynamics and make positive personal changes without fear of criticism.

The SGC, with the Student Activities staff, manages the student activities budget and meets in business sessions. During the meetings, the members address student issues and plan and produce student activities such as Fall Festival, Spring Fling, Martin Luther King Jr. Celebration, blood drives, leadership workshops and other projects. During meetings and projects, students learn and practice parliamentary procedure, group skills, teamwork, project management and gain the experience of getting things done in a large institution. Some students choose to work with the budget, practice secretarial skills or do advertising, student publications and other public information duties.

The SGC also represents the student body to the college administration. The SGC president serves on the Forsyth Technical Community College board of trustees as a nonvoting member and reports to the SGC about board activities when appropriate. The SGC also serves as a vehicle of communication to the students for the administration. Members of the SGC attend statewide conferences approximately twice a year. During the conferences, students meet student leaders from

community colleges across the state. They have an opportunity to share ideas and concerns and learn leadership skills in workshops.

## Alpha Mu Beta

Alpha Mu Beta is the service fraternity of the Student Government Council (SGC). Known as Ambassadors, they are a high profile group of students who spark interest in student life through campus networking, personal growth and service to the community. Applicants are selected for their high scholastic achievements and communication skills. Ambassadors become proficient in meeting people and in the organizational, time management, planning and leadership skills that will help them in their chosen fields. Applicants who are accepted into the fraternity discover a relaxed, yet disciplined, fellowship that encourages growth. Ambassadors have the opportunity to lead such events as the Angel Tree Project and many other service projects for the benefit of the college and community.

## Flight Line Program

The Flight Line Program is a process by which students can track their time spent in leadership efforts within the Student Government Council (SGC). This program allows students to have a tangible record of these efforts, which also indicates to the entire institution the work that is being done by members of the SGC. In addition, the program serves as an “extracurricular transcript” for students to utilize as they seek further education or employment. In this program, students will keep track of how many hours they spend in areas of campus service, community service and other projects during a semester. At the end of each semester, students are given awards based on how many hours were recorded. The flight metaphor represents the potential we all have to soar above our limitations and exceed our expectations. Thus, Flight Line awards are named for pioneers of flight such as the Wright Brothers, Chuck Yeager and Ronald McNair.

### Membership Requirements

If you are interested in one of the student government programs, you must:

1. Maintain your cumulative grade point average (GPA).
  - Ambassadors are required to maintain a 3.0 GPA.

- Student Government Council members must maintain a 2.5 GPA.
2. Register for the correct number of credit hours.
    - Student Government Council members must be registered for at least three credit hours per semester.
    - Ambassadors must be registered for at least six credit hours per semester.
  3. Complete a Student Government Council Application, which can be obtained in Student Activities Office, Room 150 (1<sup>st</sup> floor), Allman Center, Main Campus.
    - Ambassadors must have the application signed by a faculty or staff member.
  4. Submit the application.
    - Take your application to Student Activities Office, Room 150 (1<sup>st</sup> floor), Allman Center, Main Campus or mail it to: Student Activities Center, Forsyth Technical Community College, 2100 Silas Creek Parkway, Winston-Salem, N.C. 27103-5197.

### Interview Process

Students who apply for a position in the SGC must undergo an interview process. The program’s advisor or a SGC representative will call applicants to set up interview appointments. All applicants must be interviewed by the membership committee and the student government advisor.

All SGC candidates are required to complete an orientation program. Details of the orientation program can be obtained from the student government advisor.

### Student Activities and Athletics

Forsyth Tech strives to offer its students more than just an academic education. Efforts are made to provide students with extracurricular opportunities for involvement that will help to educate the total individual. By providing extracurricular activities, Forsyth Tech recognizes that a college education includes social, professional and cultural involvement, as well as academics. Students are invited to come by Student Activities (1<sup>st</sup> Floor), Room 150, Allman Center, Main Campus, to find out more about what Forsyth Tech has to offer outside the classroom.

All credit students pay the student activity fee when they register and automatically become members of Forsyth

Tech's Student Government Association. Though called an activity fee, it is used for more than just providing activities. Below is a list of expenses covered by the student activity fee.

1. Graduation expenses are partially covered. It costs over \$25 per student to hold a graduation ceremony. Currently, students pay a graduation fee of \$10 for each diploma received.
2. Student activities and entertainment such as the Fall Festival, Spring Fling, Martin Luther King Jr. Celebration and Night Student Appreciation are free to students.
3. Student publications such as the *Student Handbook* and the student newsletter *Technically Speaking* are available to all students.

The student newsletter, *Technically Speaking*, is published monthly. Students can become involved in writing, photography, editing, desktop publishing, ad solicitation and paper distribution. A student who is interested in becoming a newsletter staff member or a freelance contributor to the publication should contact the Student Activities Office.

The purpose of the student newsletter is for students to prepare and organize a publication that benefits other students. The responsibility of the institution is to provide guidance to the students and funding for the printing of the newsletter. An English instructor serves as the advisor of the paper. Funding comes from the student activities budget. All student communications shall explicitly state that the opinions expressed are not necessarily those of the

college or of its students.

4. Athletic teams participate in men's basketball, coed cheerleading, women's volleyball and women's fastpitch softball with other community colleges. Equipment and registration fees are paid out of the student activity fee budget. Golf tournaments, bowling leagues and a putt-putt tournament are also offered every year to students at a greatly reduced price.
5. All Student Government Association expenses are paid out of student activity fee funds. Expenses include the student activities director's and secretary's salaries, supplies and materials for the Student Activities Office and all SGA printing expenses.
6. Attendance at SGC conferences is a major expense of the SGA. Forsyth Tech is a member of the North Carolina Comprehensive Community College (N4C) Student Government Association. The N4CSGA offers two conferences each year. These conferences offer workshops and seminars to prepare students to lead the SGA on their campuses.

The Forsyth Tech men's basketball team and women's volleyball team are both members of the National Junior College Athletic Association (NJCAA). An intercollegiate athletic team is also offered in women's fastpitch softball. Interested students should contact the Student Activities Office regarding participation.

If you have questions regarding student organizations, please contact the Student Activities Office.

# Student Code of Conduct

## Code of Conduct

The act of enrollment at Forsyth Tech includes an acceptance by the student of the rules of Forsyth Tech. By enrolling, the student accepts the obligation to assist in making Forsyth Tech an effective place to conduct a learning process and to engage in the pursuit of truth, the development of self and the improvement of society. Each enrolled student is considered to be a responsible adult, and Forsyth Tech assumes and requires that students who enroll in the various programs will maintain standards of conduct appropriate to the status of students at Forsyth Tech.

Forsyth Tech has an inherent responsibility to maintain order on its campus. Therefore, students may be suspended or dismissed for behavior deemed incompatible with the mission, the regulation or the responsibility of Forsyth Tech or deemed to be in violation of any of the provisions of the code of conduct as set forth herein.

Forsyth Tech recognizes the right of an enrolled student to receive a full opportunity to learn and develop, unfettered by any and all obstacles not conducive to a sound, fundamental educational program. To this end, Forsyth Tech recognizes, declares and vests certain rights in each student enrolled at Forsyth Tech.

## Student Rights

### A. Legal Rights

All the rights and privileges guaranteed to every citizen by the constitution of the United States and by the state of North Carolina shall not be denied any student. Furthermore, Forsyth Tech shall adhere to all of the statutes of the United States and the state of North Carolina. Forsyth Tech has recognized the Student Government Association as the approved agency to voice students' opinions and speak on institutional policies concerning students' activities.

### B. Rights of the Learner

The instructor in the classroom and in conference shall encourage free discussion, inquiry and expression. Student performance will be evaluated

solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards.

### C. Student Records

The Family Educational Rights and Privacy Act of 1974 (FERPA) provides safeguards regarding the confidentiality of, and access to, student records.

1. Students may review their educational records by making a written request to the coordinator of records.
2. Student records will not be reviewed by third parties unless permission is obtained in writing from the student. Exceptions may be made for instructors and administrators if the information is for educational purposes. Exceptions may also be made for parents who claim the student as a dependent and for credentialing, auditing or accrediting organizations. The vice president of student development services will make the final decision concerning access to records.
3. Official transcripts will be issued only when a written request is received from the student or upon written authorization by a student to be released to a designated entity. Transcripts from high schools or other colleges will not be released.

### D. Freedom of Association

Students are free to organize and join an association organized or existing to promote students' program or career interest. Student organizations must select a faculty advisor and submit a constitution to the Student Government Council.

### E. Due Process

Due process procedures are established to guarantee the right of hearing, a presentation of charges, evidence for charges, the right of confrontation by the questioning of witnesses and the right to counsel by the accused student, if so requested by the student. Any student aggrieved by the violation of this code of conduct shall have the right of appeal to the student appeals committee as hereinafter provided.

## General Campus Rules

The following is a general summary and classification of the major rules of student conduct, and any violation shall be considered a violation of this code of conduct. For purposes of Forsyth Tech rules and regulations,

Forsyth Tech grounds are defined as any location owned, leased, rented, controlled or otherwise occupied by Forsyth Tech or any division thereof.

### **Rule 1. Disruption and Disorderly Conduct**

A student shall not engage directly or aid and abet in disorderly conduct that is intended to provoke violent retaliation or cause a breach of peace that disrupts, disturbs or interferes with the normal routine, activities or teaching of students, or that disrupts, disturbs or interferes with the peace, order or discipline on Forsyth Tech grounds.

### **Rule 2. Damage to or Destruction of Forsyth Tech Property**

A student shall not intentionally, willfully or wantonly cause, or attempt to cause, substantial damage to be done to Forsyth Tech property or shall not steal, or attempt to steal, Forsyth Tech property.

### **Rule 3. Damage to or Destruction of Private Property**

A student shall not intentionally, willfully or wantonly cause, or attempt to cause, damage to private property of another or shall not steal, or attempt to steal, private property of another when on Forsyth Tech grounds or while attending a Forsyth Tech activity, function or event held off Forsyth Tech grounds.

### **Rule 4. Assault or Verbal Abuse of Forsyth Tech Employees**

A student shall not intentionally cause, or attempt to cause, physical injury, verbal abuse, or harassment or communicate a threat to a Forsyth Tech employee.

### **Rule 5. Assault or Verbal Abuse of Persons Other Than Employees**

A student shall not intentionally cause, or attempt to cause or threaten to cause physical injury, verbal abuse, or harassment or communicate a threat or direct any profane language toward any other student or Forsyth Tech agent, guest or visitor at any time while such student is enrolled at Forsyth Tech or while such student is on Forsyth Tech grounds or is attending a Forsyth Tech activity, function or

event held off Forsyth Tech grounds.

### **Rule 6. Weapons and Dangerous Instrumentalities-North Carolina General Statute 14-26**

It is unlawful for anyone to possess any weapon, whether openly or concealed, while on educational property. House Bill 1008: It is a felony to possess or carry a firearm or explosive device on educational property or to aid a person less than 18 years old to possess or carry a firearm or explosive device on educational property. This bill makes it a misdemeanor to cause, encourage or aid a person less than 18 years old in taking or possessing other types of weapons on educational property. This bill also makes it a misdemeanor for any person who owns or possesses a firearm and who resides in the same premises as a person less than 18 years of age to store or leave the firearm in a condition that the firearm can be discharged and in a manner that the person knew or should have known that an unsupervised minor would be able to gain access to the firearm. In practice, then, this statute permits prosecution of anyone carrying any dangerous instrument in school, on school grounds or at any school activity.

### **Rule 7. Narcotics, Alcoholic Beverages and Controlled Substances**

A student shall not knowingly or negligently own, possess, use, transport or be at any time under the influence of any narcotic drug, alcoholic beverage or any other controlled substance (as controlled substance is defined by the North Carolina General Statutes or 21 U.S.C. subsection 812) while on Forsyth Tech grounds or during the time when a student is participating in any Forsyth Tech activity, function or event off Forsyth Tech grounds. Use of any drug authorized by medical prescription from a registered physician shall not be considered a violation of this rule. However, students shall be held strictly accountable for their behavior while under the influence of prescribed medicines.

### **Rule 8. Classroom and Campus Activities**

A student shall comply with all directions of Forsyth Tech faculty, administrators or authorized personnel during any time when the

student is under the authority of Forsyth Tech personnel. A student on campus shall promptly identify himself to a Forsyth Tech official or campus public safety officer at all times upon reasonable request. A student shall appear before Forsyth Tech officials or disciplinary bodies when so directed. Any failure by any student to abide by these regulations in this Rule 8 shall constitute a violation of this code of conduct.

### **Rule 9. Academic Dishonesty, Cheating, Forgery and Related Offenses**

It shall be a violation of Forsyth Tech code of conduct for a student to commit any one of the following acts:

1. Academic cheating, including, but not limited to, unauthorized copying of academic work of another, collaboration for use of notes or books on examinations without prior permission of the instructor.
2. Plagiarism or the intentional presentation of work of another without proper acknowledgment of the source.
3. Fabrication and falsification or the intentional misrepresentation of any information or citation in an academic exercise.
4. Submission of substantial portions of the same academic work for credit more than once without authorization.
5. Abuse of academic materials in the form of destruction, theft or concealment of library or other resource material or of another student's notes or laboratory experiments.
6. Complicity in academic dishonesty in helping or attempting to help another student to commit an act of academic dishonesty.
7. Furnishing of false information to any Forsyth Tech personnel including forgery, falsification or fraudulent misuse of any documents, records or identification cards.

### **Rule 10. State and Federal Laws**

A student shall not violate any state or federal laws while on Forsyth Tech campuses or while attending a Forsyth Tech activity, function or event off Forsyth Tech grounds.

### **Rule 11. Student Attire Code**

Although Forsyth Tech students may dress informally, cleanliness and neatness of

appearance must be maintained. Shirts and shoes are required at all times while the student is on campus or at all times while such student is attending a Forsyth Tech activity, function or event off Forsyth Tech grounds. Special technical or vocational credit programs, such as the health credit programs, may require special attire for clinical or laboratory areas. A student shall not attend classes or laboratory work conducted in the clinical or laboratory areas if such student is in violation of the attire codes for such areas.

### **Rule 12. Involuntary Psychological or Psychiatric Withdrawal**

It shall be grounds for dismissal if and when it shall be medically determined that a student poses a threat to the physical well-being of himself or others or if such student has a physical, mental or emotional condition of such a nature as to disturb or disrupt the normal and usual activities of other persons on campus. A student shall agree to have a psychiatric evaluation when it appears to the satisfaction of the president of Forsyth Tech, or designee, that such examination is in the best interest of the student or Forsyth Tech or both.

### **Rule 13. Children in Classrooms or Shop Areas**

Children are not allowed in classrooms or shop areas during class sessions, nor may they be left unattended in the library, in canteen areas or on campus grounds.

### **Rule 14. Roller Skating, Roller Blading and Skateboarding**

For the safety and well-being of all Forsyth Tech students, employees and visitors, no one is permitted to roller skate, roller blade, or skateboard on sidewalks, parking lots or any other college property.

### **Violation of the Code of Conduct**

The following are the degrees of disciplinary action that may be taken as a result of violation of the student code of conduct:

- A. Verbal Warning** - A verbal warning that the specific behavior/condition will not be continued or repeated or further disciplinary action will be taken.

- B. Warning** - A written notice to the student that continuation or repetition of specified conduct will be cause for further disciplinary action.
- C. Disciplinary Probation** - A written reprimand to the student for violation of a specified rule, which may include exclusion from participation in a class or specified activities for a specified time as set forth in the notice.
- D. Restitution** - Reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or compensate for damages.
- E. Suspension** - Exclusion from class or classes and other student privileges or activities as set forth in the notice of suspension.
- F. Dismissal or Expulsion** - Termination of student status for a definite period of time. At the end of this period of expulsion, the student is eligible to apply through the dean of program development for consideration for re-admission.
- G. Other** - Other types of discipline as set forth in campus rules and regulations consistent with the incident involved.

If, as a result of a violation of the student code of conduct a student is dismissed from class or classes, the student may receive a failing grade(s), and the disciplinary dismissal will be recorded in the student's permanent record.

The conviction of a student of a criminal offense involving personal misconduct of a kind, which, if condemned by the college, would reflect dishonor or discredit on the college, shall be sufficient grounds for suspension or dismissal of such students.

### **Sexual Harassment Policy**

Forsyth Technical Community College is committed to promoting an atmosphere in which all members of the college - faculty, staff and students - may work free of sexual harassment and provides for an orderly resolution of complaints of sexual harassment.

All members of the college are expected and requested to conduct themselves in such a way that contributes to an atmosphere free of sexual harassment. Sexual harassment of any employee or student is a violation of the policies of the college, as well as state and federal

law, and will not be tolerated. Anyone who violates this policy will be disciplined in accordance with appropriate disciplinary procedures.

Sexual harassment is defined as deliberate, unsolicited, unwelcome verbal and/or physical conduct of a sexual nature or with sexual implications made by any employee or student when:

1. Submission to such conduct is made either explicitly or implicitly a condition of an individual's employment or academic or student status.
2. Submission to or rejection of such conduct by an individual is used as the basis for employment decisions or decisions regarding a receipt of grades affecting that individual.
3. Such conduct has the purpose or effect of interfering with an individual's performance or creating an intimidating, hostile or offensive environment in the workplace or the classroom.

Any student or employee who believes that he or she has been subjected to sexual harassment in violation of this policy should file a confidential complaint to the vice president of Student Development Services or the director of Human Resources for employees. An investigation of these allegations will be conducted promptly and appropriate action taken.

Sexually harassing behavior may include offensive sexual flirtation, advances, propositions; continued or repeated abuse of a sexual nature; graphic verbal commentary about an individual's body; sexually degrading words used to describe an individual; and the display in the workplace or on campus of sexually suggestive objects or pictures.

### **Enforcement Procedures**

Student conduct on a Forsyth Tech campus or student conduct during a Forsyth Tech activity, function or event held off Forsyth Tech grounds that violates federal and/or state and Forsyth Tech regulations may be dealt with in the following manner:

1. The student may be turned over to the civil authority and subjected only to the penalties imposed by that authority.
2. The student may be subjected to sanctions imposed both by the civil authorities and Forsyth Tech.
3. The student may be subjected to sanctions imposed by Forsyth Tech, notwithstanding the fact the civil sanctions may not be imposed.

## Disciplinary Procedures

### A. Instructional Areas

Any instructor may request a student to leave a class, laboratory, shop or clinical area when, in the opinion of the instructor, the student's conduct or personal demeanor disrupts normal classroom activities. If the student refuses to leave the class, the instructor may call campus public safety for assistance. The instructor, identifying the student and the cause for dismissal from class, will immediately notify in writing the division dean and the vice president of Student Development Services of actions taken.

The burden of requesting re-entry to class, laboratory or clinical areas will be upon the student involved. Request for re-entry must be made to the instructor before the next class meeting. If the instructor decides that the student needs additional counseling before re-entry, the instructor may require that the student meet with the division dean or the counseling staff for further discussion. If the division dean or the counseling staff decides that the student should be dismissed from the class or from Forsyth Tech, the instructor will send a written report (approved by the division dean) to the student, the vice president of Instructional Services and the vice president of Student Development Services. The vice president of Instructional Services will make the decision on dismissal when applicable and dismiss the student. The student will be given a copy of the report and a written notification of the decision. If a student wishes to appeal the decision, the appeal must be made by writing the student appeals committee within five days after receiving the dismissal notice.

### B. Non-Instructional Areas

Any employee or student may file a written complaint for disciplinary action against any student enrolled at Forsyth Tech. The Public Safety Office may temporarily remove a student from campus when the student is jeopardizing the safety and security of faculty, staff and/or the student body; a written complaint must then be filed. The complaint must be filed with the vice president of Student Development Services, who will promptly investigate the complaint and make a decision regarding warning, suspension, dismissal or other

disciplinary action. Both the complainant and the student involved will be notified in writing. If the student wishes to appeal the decision of the vice president of Student Development Services, the appeal must be made by writing the student appeals committee within five days after receiving the notice of the decision.

### Student Appeals Committee

The student appeals committee will hear the appeal of any student after the appeal process has been exhausted at the department and division levels for instructional areas or the vice president of student development services for non-instructional areas. The student appeals committee will hear the appeal of any student regarding the following:

1. discipline
2. dismissal, except for academic standing
3. admissions
4. discriminatory practices, including violations of the Americans with Disabilities Act (ADA)
5. sexual harassment

The appeal will be heard under the following conditions within five working days of receipt of the confirmed appeal:

1. The student must submit a written statement containing factual and valid reasons for the appeal to the vice president of Student Development Services, who will forward the statement of appeal to the committee chairperson. The chairperson may return the appeal to the student to clarify, to add factual information or to state reasons for the appeal; the chairperson may reject the appeal if policies and procedures have not been followed by the student or there is sound reason to reject the appeal.
2. The committee will confine itself to making a recommendation on the appeal question and not on the validity of existing policies of Forsyth Tech. The committee reserves the right to suggest to the president that a current policy be examined for continued value to Forsyth Tech.
3. The committee will submit its recommendation to the president, who will make a final decision and who will notify the parties involved.
4. Records of the proceedings of the student appeals committee are available upon written request to the vice president of Student Development Services.
5. The student must obtain special permission from the

vice president for Instructional Services to attend classes pending resolution of the case on appeal.

### **Appeal of Admission Decision**

A student must submit a written request to appeal an admissions decision to the director of Admissions. If the student is not satisfied with the results of the decision, he/she can appeal to the vice president of Student Development Services. The vice president of Student Development Services will, in turn, give the appeal to the student appeals committee to hear and make recommendation(s). The committee will submit those recommendations to the president who will make a final decision.

**Residency Appeal:** In matters concerning residency classification, the vice president of Student Development Services will review prior decisions and all materials submitted. A decision will be rendered, and all parties will be notified in writing of the decision.

**To appeal the vice president's decision:** The next step in the appeal process is to the state residency committee. Procedures on state appeal are available in the office of the vice president of Student Development Services.

### **Definition of Academic Dishonesty**

The following are further explanations of violations of Rule 9.

#### **A. Plagiarism:**

**Definition:** The intentional presentation of the work of another as one's own without proper acknowledgement of the source. The sole exception to the requirement of acknowledging sources is when the ideas or information are common knowledge.

Plagiarism as the result of misunderstanding or misapplying the rules of documentation may be unintentional, but it is still plagiarism. Plagiarism includes but is not limited to:

1. Copying from a written source, another student or a database (whether professional or nonprofessional; whether published or nonpublished) without proper citation in either a document or a speech.
2. Rewording (paraphrasing) or summarizing someone else's material without proper citation in a document or a speech.
3. Failing to cite word-for-word passages in a document or a speech.
4. Using purchased pre-written materials (including computer programs and files, research designs, distinctive figures of speech, ideas and images, or generally any information belonging to another) as the student's own or having someone else do the student's work.

#### **B. Cheating:**

**Definition:** Intentional use or attempted use of unauthorized materials, information, notes, study aids, devices or other assistance in any academic exercise. This definition includes unauthorized communication of information during an academic exercise. Cheating includes but is not limited to:

1. Copying from another student's paper or receiving unauthorized assistance during a quiz, test or examination.
2. Procuring, without authorization, tests or examinations before the scheduled exercise (including discussion of the substance of examinations and tests when it is expected it will not be discussed).
3. Copying reports, lab work, computer programs or files and the like from other students.
4. Collaborating on laboratory or computer work without authorization and without any indication of the nature and extent of the collaboration.
5. Sending a substitute to take an examination.
6. Receiving assistance in locating or using sources of information in an assignment where such assistance has been forbidden by the instructor.

#### **C. Fabrication and Falsification:**

**Definition:** Intentional alteration or invention of any information or citation in an academic exercise.

Falsification refers to the alteration of information, such as altering research, clinical or practicum data. Fabrication refers to the invention or counterfeiting of information, such as inventing research or clinical data or records. It would also include altering grade reports or submitting false records for tardiness and absences for scheduled academic exercises. Altering a returned examination paper and seeking regrading also constitutes falsification.

#### **D. Multiple Submissions:**

**Definition:** The submission of substantial portions of the same academic work (including oral reports) for

credit more than once without authorization, including submitting the same paper for credit in two courses without instructor permission.

### **E. Abuse of Academic Materials:**

Definition: Intentional destruction, theft or concealment of library or other resource material or of another student's notes or laboratory experiments.

### **F. Complicity in Academic Dishonesty:**

Definition: Intentionally helping or attempting to help another to commit an act of academic dishonesty, such as those acts noted above.

Collaboration and sharing information are characteristics of academic communities. These become violations when they involve dishonesty. Students should seek clarification when in doubt.

## **Policies**

### **Policy on Compliance with the Americans with Disabilities Act**

A policy on compliance with the American with Disabilities Act (ADA) is in effect at Forsyth Technical Community College and published in the *Employee Handbook*. The board of trustees of Forsyth Tech intends to comply with the requirements of the Americans with Disabilities Act and provide access to education for persons with disabilities as part of the mission of the institution. The director of Testing/Disability Services/ADA for Forsyth Tech should be contacted with questions or concerns regarding the ADA.

### **Infectious Disease Policy**

Forsyth Tech is committed to ensuring, as far as possible, that each employee and student enjoy safe and healthful work and/or study conditions. To this end, the college offers the following information for students and employees.

This policy information presents the procedures to be used by Forsyth Tech to protect those students and employees who may be exposed to infectious diseases and blood-borne pathogens. Blood-borne pathogens include, but are not limited to, the human immunodeficiency virus (HIV), which is the causative agent for acquired immune deficiency syndrome (AIDS), and hepatitis B virus (HBV). These procedures are based on written requirements published in the Federal Register (29 CFR 1919.1030).

Persons infected or reasonably believed to be infected with communicable diseases shall not be excluded from enrollment or employment or restricted in their access to the institution's services or facilities unless medically-based judgments in individual cases establish that exclusion or restriction is necessary to the welfare of the individual, welfare of other members of the institution, or welfare of client, staff or students in a clinical area.

Persons who know or have a reasonable basis for believing that they have an infectious/ communicable disease that may pose a threat to others have an obligation to conduct themselves in accordance with such knowledge so as to protect themselves and others. Accordingly, employees should report this information to the Human Resources director, and students should report to the vice president of Student Development Services. All information will be kept confidential except to those persons determined by the Human Resources director and vice president of Student Development Services, as having a need to know. These persons will be informed after the individual is advised that such action will be taken.

It is the further declared policy of Forsyth Tech that its faculty, administration and staff will conduct a continuing information program for all areas of Forsyth Tech personnel regarding communicable diseases and disabling illnesses.

### **Drug-Free Student Policy**

Drug use and abuse by students have become major concerns in our society. These problems are extremely complex with no easy solutions. Drug use may impair the well-being of all students and the educational environment and may lead to damage of Forsyth Tech property.

Therefore, it is the policy of Forsyth Tech that the unlawful manufacture, distribution, possession or use of a controlled substance is prohibited while on Forsyth Tech grounds.

1. Forsyth Tech does not differentiate between drug users and drug pushers or sellers. Any student who gives or in any way transfers or aids and abets in the transfer of a controlled substance to another person or sells or manufactures or aids and abets in the sale or manufacture of a controlled substance while on Forsyth Tech premises will be subject to disciplinary action up to and including suspension from school.
2. The term "controlled substance" means any drug

listed in the North Carolina General Statutes or 21 U.S.C. subsection 812 and other federal regulations. Generally, these are drugs that have a high potential for abuse. Such drugs include, but are not limited to, heroin, marijuana, cocaine, PCP and "crack." They also include legal drugs that are not prescribed by a licensed physician.

3. The counseling staff will conduct drug awareness and education workshops for students each semester. Individual counseling sessions and educational materials will be available in Counseling and Career Services at all times.
4. The counseling staff will include in orientation sessions reference to drug policies, drug awareness and sources for assistance.
5. The counseling staff will be available to lecture and assist instructional staff with class presentations to help educate students regarding the health risks of alcohol and drug abuse.
6. The counseling staff will have available referrals for treatment and more extensive assistance.
7. The counseling staff will biennially assess the institutional environment by reviewing data from public safety, Counseling and Career Services, instructors and other community resources to guide educational program development for students.

### **Crime Awareness and Campus Security Act**

Staff, faculty and students of Forsyth Tech are encouraged to report all criminal actions and other related emergencies to the Public Safety Office, located in the Carolina Annex, Main Campus. A special emergency number has been established. Staff, faculty and students may dial extension **7325** from any campus telephone (excluding pay telephones) and receive immediate assistance. Pay telephones provided throughout campus locations are available for students to dial 911 for immediate assistance. In addition, the college has installed red emergency phones throughout

the campus. Upon picking up the receiver, the phone automatically dials the 7325 emergency number. Upon receipt of a call, a public safety officer is assigned to respond. The call is documented if necessary, investigated and processed by the investigating officer. If necessary, or where appropriate, an outside agency such as the Winston-Salem Police Department maybe contacted for assistance. Other staff of the college, such as the vice president of Student Development Services, may also become involved where appropriate.

All complaints are reviewed and, where appropriate, action is taken by the director of Public Safety. Further review and action may occur up through the chain of command, including the president and board of trustees.

A sworn public safety officer is on duty at all times regular classes are in session.

### **Computer Software Copyright Policy**

Forsyth Tech purchases licenses for use of a wide variety of copyrighted computer software. The college does not own the copyright on this software or its related documentation and, unless authorized by the software developer or publisher, does not have the right to reproduce it.

According to the United States Copyright Law, illegal reproduction of computer software can be subject to civil damages up to \$100,000 and criminal penalties including fines and imprisonment.

Forsyth Tech does not condone the illegal duplication of computer software or the use of illegally duplicated software. College employees and students shall use computer software only in accordance with its licensing agreements. Any employee or student who makes, acquires or uses unauthorized copies of computer software shall be subject to disciplinary action.

# Corporate & Continuing Education

The Corporate & Continuing Education Division of Forsyth Tech promotes the personal and professional development of individuals and employee groups by offering non-credit courses and seminars. Courses and seminars vary from a few hours in length to several hundred hours, depending on their purpose and content. Courses for the general public are developed and routinely advertised. Others are developed and customized for the employee groups of client companies, and as a result, are not advertised to the general public. Corporate & Continuing Education instruction generally includes a combination of lecture, demonstration and application and may be delivered in either a classroom or distance learning environment.

Corporate & Continuing Education offers a broad range of educational services: basic skill and developmental assessments, GED testing, testing for professional licenses and certifications, training needs assessments and job task analyses. Some specialized programs include the small business center, focused industrial training, new and expanding industry, human resource development, workplace literacy and English as a second language.

The Corporate & Continuing Education Customer Service Center provides information about courses and programs and processes course registrations. The center is open Monday through Friday and is located on West Campus at 1300 Bolton Street, Winston-Salem. Call the Customer Service Center at (336) 761-1002 or access its services online at:

**<http://www.forsythtech.edu/corporate/index.html>.**

Corporate & Continuing Education offers courses at the 4<sup>th</sup> Street Small Business Center, 5<sup>th</sup> Street Library Center, Main Campus, the Grady P. Swisher Center, Stokes County Center, West Campus and the Mazie S. Woodruff Center. Courses are also conducted at other facilities throughout Forsyth and Stokes Counties.

## Mission

The mission of the Corporate & Continuing Education Division is to work in partnership with the community

to identify and meet adult education and training needs for lifelong learning, economic development and improved quality of life.

The general program objectives are:

- To provide expanded educational opportunities for adults who would not otherwise continue their education,
- To provide relatively inexpensive, convenient educational opportunities for adults regardless of educational background,
- To provide programs of vocational/technical education for employed and unemployed adults who need training or retraining,
- To provide short courses that meet general adult and community needs.
- To provide requested vocational and technical training programs for new and expanding industry in the Forsyth Tech service area, and
- To provide small business development, educational programs and services for establishing prospective businesses.

## Admissions Requirements

Corporate & Continuing Education courses and seminars are generally for adults 18 years of age and older. However, individuals 16 and 17 years of age may enroll in some courses if they first obtain approval from the public school system. Some courses require a student application, and prospective students should inquire about admission requirements for specific programs of interest. Inquiries can be made at the Corporate & Continuing Education Customer Service Center at (336) 761-1002.

## Course Fees

Most Corporate & Continuing Education courses have associated fees; such as registration, technology and insurance; some do not. Fee and fee refund policies are publicized in the *Schedule of Courses* and on the college Web site. It is important to note that in accordance with state policy, the advertised registration fee may not pertain to a course that a student wishes to take more than twice in a five-year period. If this is the case, an adjusted registration fee will be determined, and it will be the responsibility of the student to pay the adjusted fee. In addition, students attending classes on any of the college's campuses are required to purchase a college parking decal.

Some students are exempt from paying registration fees. Volunteer firemen, fire department personnel, volunteer and paid rescue personnel and local law enforcement officers are not required to pay registration fees for certification and other occupation-related courses required for their public safety work. Individuals 65 years of age and older are also exempt from paying some registration fees.

## **Continuing Education Units (CEUs)**

Corporate & Continuing Education occupational extension courses are approved for continuing education units (CEUs). An occupational extension course is one that provides instruction on specific occupational skills to learn new ones. CEU credit is based upon the number of hours a course is scheduled to meet. One CEU is awarded for every 10 hours, and any portion thereof, a person attends class. (For example, a course that meets for 22 hours awards 2.2 CEUs.)

## **Educational Programs**

### **Adult Basic Skills**

This program provides education in basic reading, writing and math skills through the Department of Adult Literacy.

The primary objectives of the program are:

- To enable individuals to achieve greater independence in their personal lives,
- To enhance their ability to benefit from occupational training,
- To increase their opportunities for better and more rewarding jobs,
- To make them better able to meet their family and community responsibilities and
- To help business and industry use the full capabilities of their work force.

Adult basic education classes are held at various locations throughout Forsyth and Stokes counties during day and evening hours. No registration fees are charged, and some books and materials may be supplied free of charge.

### **Adult High School Diploma**

Forsyth Tech, in cooperation with the Winston-Salem/Forsyth County School System and the Stokes County School System, offers courses to adult students who have dropped out of high school and wish to

obtain an adult high school diploma.

Adults take courses needed to satisfy North Carolina high school graduation requirements. A passing score on the high school competency test is required for graduation. The program is designed for adults 16 years old or older. Students must be officially withdrawn from their previous school for four (4) months.

There is no registration fee; however, students must purchase their own books and supplies.

## **Apprenticeship Programs**

Corporate & Continuing Education offers apprenticeship programs in cooperation with local employers.

- Electrical
- HVAC
- Inside Wireman
- Plumbing I

Apprentices are required to complete a minimum of 144 hours of instruction each year, and classes are offered during the fall and spring semesters. In addition, indentured apprentices must complete 2,000 hours of on-the-job training each year. At the conclusion of the program, apprentices receive a journeyman's card through the North Carolina Department of Labor.

## **CareersNOW! Vocational Programs**

CareersNOW! is a program conducted by Forsyth Tech at Goodwill Industries University Parkway facility in Winston-Salem. Its purpose is to provide educational career planning and cost-effective occupational training to prepare individuals for entry-level positions or to take advantage of career advancement opportunities.

Programs are conducted Monday through Thursday, day and evening. For information, call the Goodwill Industries' Career Planning Department at (336) 724-3625 ext. 1304, or Forsyth Tech at (336) 734-7715.

## **Community Service**

Community service courses and activities are designed to contribute to a community's overall cultural, civic and intellectual growth. Some of the more popular courses include foreign languages, creative writing, dance, yoga, art, cooking, crafts, photography and retirement planning; almost any course can be offered in response to community interest. When special state funding has been appropriated, some community

service courses are offered registration fee exempt for students 65 years of age and older. These “free to seniors” courses are not always available, but when available, they are so noted in the *Schedule of Courses*.

### Compensatory Education

The compensatory education program provides educational opportunities that enable persons with mental disabilities to function in society at a level that will allow them to reach their full potential and maintain mastered skills. No fees are charged to the student, and books and materials are supplied free of charge. Program information can be obtained by calling (336) 761-1002.

### Computer Applications

A wide variety of computer courses are offered online and in the classroom. Computer courses can also be customized to meet specific content and scheduling requirements of company employee groups.

### Continuing Education Distance Learning

**Ed2go:** Affordable, convenient learning from your home or office. Continuing Education Ed2go courses are 6 weeks in length (24 hours) offering 2.4 Continuing Education Units (CEU's) with successful completion. For a full course listing: including price and date of courses, please go to <http://www.ed2go.com/forsyth>. A wide range of courses are available.

**Blackboard:** Blackboard Medical Courses are eight weeks (20 hours) for transcription and 11 weeks (36 or 39 hours) for terminology, billing, coding (basic), coding ICD-9-CM- advanced, coding CPT advanced and AAPC certification exam review. Please see

<http://www.forsythtech.edu>. Corporate & Continuing Ed, Bb icon for dates and other important course information.

Please call 761-1002, Forsyth Tech West Campus Customer Service for further info and to register.

### Customized Spanish

In a customized Spanish course, participants learn work-related phases, questions and commands needed for them to communicate with native Spanish-speaking customers. They do not learn comprehensive Spanish but learn the vocabulary unique to specific work situations.

## Emergency Services

**Emergency Medical Services:** Forsyth Tech offers certification courses in all levels of emergency medical services (EMS), ranging from the emergency medical technician (EMT) to the paramedic. For individuals with an EMS certification, the college offers continuing education and refresher courses and has the capability of conducting specialty courses for rescue squads.

**Fire Services:** In addition to offering fire and safety-related courses for business and industry, Forsyth Tech also conducts basic through advanced firefighter and rescue training for fire departments in Forsyth and Stokes counties. A wide range of continuing education fire services and specialty courses are also available.

**Law Enforcement Training:** To prepare individuals for careers in law enforcement, Forsyth Tech offers certification courses ranging from detention officer training to basic law enforcement training. The college also conducts law enforcement specialty and continuing education courses for private security agencies and city, county, state and federal law enforcement agencies.

### Employee Health and Safety

Forsyth Tech offers several courses in employee health and safety. The courses are approved by the appropriate agency; several are developed to specifically meet Occupational Safety and Health Administration (OSHA) and/or occupational credentialing requirements.

### Employee Training Programs

Each employee training program is client-driven; that is, course content, schedule, methodology and location are based on client needs and preferences. Training programs can be developed to upgrade the skills of existing employees or to recruit and train participants for potential employment with specific companies. Forsyth Tech's employee training programs are developed to make a long-lasting contribution to company growth and productivity. Contact (336) 734-7732 to request a customized employee training program.

## **English as a Second Language (ESL)**

The ESL program provides instruction for foreign-born adults who have limited English proficiency. Students may attend seven levels of classes to acquire skills in listening, speaking, reading, writing and comprehension of the English language and acculturation to the society of the United States. No registration fee is required.

## **Focused Industrial Training**

The Focused Industrial Training program provides technical training for employees of manufacturing companies to enable them to stay abreast of changing technology. Courses are frequently customized for small groups of employees, and training is most frequently offered at the industrial site

## **Forsyth Tech Hispanic Center**

The Forsyth Tech Hispanic Center, located at the Forsyth County Public Library, 660 West 5<sup>th</sup> Street in Winston-Salem, serves the native Spanish speaking residents of Forsyth and Stokes counties to help integrate them into the mainstream of society. It represents a partnership of organizations dedicated to enhance adult literacy skills in the community by offering English as a Second Language (ESL) and Adult Basic Education classes.

## **General Education Development (GED)**

The tests of general education development (GED), developed by the American Council of Education for persons who have not graduated from high school, are designed to measure, as nearly as possible, the skills and concepts generally associated with four years of regular high school instruction. A small fee is charged for taking the GED test. The test is offered in English and Español.

Upon successful completion of the GED tests, a high school diploma equivalency is issued by the North Carolina Community College System. Forsyth Tech is one of the 83 official GED testing centers in the state and is the only one in Forsyth County. Forsyth Tech offers GED preparation classes at selected sites in Forsyth and Stokes counties.

## **Health Occupations**

Forsyth Tech offers courses to prepare individuals for entry-level positions in the health fields. All courses are conducted according to the guidelines of the appropriate state agency and meet the requirements for

employment training and recertification or licensing. Popular courses include certified nursing assistant, massage therapy, medical office coding and medical accounting.

## **Human Resources Development (HRD)**

The mission of Forsyth Tech's human resources development program is to strengthen the employment and educational opportunities of the county's residents who are unemployed or underemployed. The primary goal is to help these individuals develop the essential skills needed for securing and maintaining employment.

## **Industrial Technology**

Industrial technology courses are continually updated to enable employees to learn the use of new equipment and processes. Courses are conducted according to certification, federal or state guidelines to train company employees in specialized techniques, OSHA and/or systems operations.

## **Languages and Cultures**

A variety of language courses including occupational Spanish, English as a second language (ESL) and conversational French, German, Italian and Spanish are offered to meet both professional and personal needs. Language courses can be customized to suit the special needs of a company or organization. Course content, schedule, methodology, class location and length of study are based on client needs and preferences.

## **Licensure and Certification Courses**

Forsyth Tech is authorized to conduct certain licensing and certification courses required in North Carolina. In addition, state exam preparation courses are available as well as annual recertifying courses and continuing education courses to meet requirements for maintaining licenses.

## **New and Expanding Industry**

New and expanding industry employee training is conducted free of charge for expanding or new industries that plan to add a minimum of 12 new production employees in a year. Training is for new employees only.

## **Pre-Employment Training**

Forsyth Tech conducts pre-employment training

programs for client companies to train a pool of qualified applicants for specific job vacancies. Companies can take applications and conduct interviews near the completion of the pre-employment program.

**Small Business Center**

The Small Business Center (SBC) provides counseling, information resources and educational programs to help current and prospective business owners begin or sustain a business. The SBC is located at Forsyth Tech's 4<sup>th</sup> Street Small Business Center, Chamber Building, in downtown Winston-Salem.

**Educational Services**

**Basic Skill Assessments**

It is often useful to determine the basic skill levels of employees prior to developing a customized training program. Validated assessment instruments are used to identify the math, reading, language and spelling competence of employees. The information gained can be used to determine if the basic skill levels of employees need to be upgraded for them to become fully job functional. The basic skill assessments can be done in either English or Spanish, and classes to help employees improve their basic skills can be conducted onsite.

**Educational Career Center -  
JobLink Affiliate**

The Educational Career Center - JobLink Affiliate helps continuing education students and the general public to:

- Develop a personalized educational career plan
- Select Corporate & Continuing Education courses and certification programs
- Attain information about credit certificate, diploma and degree programs

- Review college admission and financial aid applications
- Apply for training vouchers and other special services
- Conduct a job search
- Prepare a resume
- Enroll in education and career preparation workshops
- Utilize on-site services of the Employment Security Commission, Experiment in Self Reliance, Goodwill Industries and Vocational Rehabilitation

The center is open Monday through Friday and is located in Room 111, West Campus at 1300 Bolton Street, Winston-Salem. Call the center at (336) 734-7748. Services are free of charge.

**Job Task Analyses**

A multi-step process, job task analyses are conducted to identify the tasks associated with specific jobs and the knowledge and skills needed for employees to perform the tasks adequately. Job task analyses provide insight into why some employees perform adequately while others perform inadequately and provide sound data for developing customized training programs.

**Training Needs Assessments**

Obtaining input from managers and different employee groups about what they perceive as their training needs is an important first step in developing customized training programs. The primary purpose of conducting a training needs assessment is to identify gaps between the current and desired levels of employee performance, knowledge and skills. The secondary purpose is to gain an understanding of strategies that can be used to close the gap.

# PROGRAMS OF STUDY

## Associate in Applied Science Degree

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The curricula for the associate in applied science (A.A.S.) degrees are technical in nature. Upon completion of a curriculum, the graduate will be awarded the associate in applied science degree. This degree is recognized nationally to indicate the successful completion of two years of education beyond the high school level.

The listing of courses for each curriculum is shown in the proper sequence. Applicants should plan to attend 21 or 24 consecutive months. (Evening curricula usually require three or more years.)

The college's purpose is to offer the technical courses which will prepare the graduate for immediate employment opportunities. Therefore, the ability to transfer to other institutions of higher education, and to transfer credit earned, will be determined by the receiving institution.

## Associate in Arts and Associate in Science Degrees

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Curricula for the associate in arts and associate in science are designed to transfer to bachelor's degree programs at senior institutions of higher education. The course work includes composition and literature, humanities, mathematics, natural and social sciences, and physical education. Students who receive a grade of C or better in each course are able to transfer these credits to a senior college or university, towards completion of a bachelor's degree. The associate in arts curriculum concentrates heavily on the humanities and social sciences and is recommended for those students who plan to continue with a bachelor's degree in one of these areas. The associate in science curriculum concentrates on mathematics, and the physical and life sciences and is recommended for those students who plan to continue with a bachelor's degree in one of these areas.

## Diploma

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The diploma curricula are practical in nature and are designed to prepare the student for immediate employment opportunities in a skilled trade or health field. All curricula are designed for one year of intensive study. (Evening curricula require approximately two years.) Some courses required in each diploma curriculum may not apply to associate's (or higher) degree levels of instruction.

## Advanced Placement Programs and Technical Speciality Diploma

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These are advanced level programs available to those who have completed an A.A.S. degree in a specified program or who meet registry requirements in selected allied health fields.

## Certificate

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Certificate curricula are educational programs of study drawn from existing curricula for persons who desire to improve their job skills in a particular area of interest.

The programs are also designed to meet the needs of employers in upgrading the occupational skills of their employees. Each certificate program may be tailored toward the requirements of a specific business, industry, or organization.

## Developmental Education

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This program offers a series of courses for preparation, remediation, and guidance for students who, for a variety of reasons, do not meet the specific entrance requirements for the regular curricula of their choice. Students who do meet the minimum entrance requirements but whose previous academic records indicate that they may have difficulty in successfully completing their curricula are also advised to complete the necessary course work in the developmental education program.

The student's academic program will be individually designed to meet their specific preparatory and remedial needs. The courses will be selected from the developmental offerings and from courses in the student's chosen program of study.

## Sample Course Listing

		Cl	Lb	Cn	Cr
RIT 239	RIT Clinical Ed V	<u>0</u>	<u>2</u>	<u>18</u>	<u>7</u>
		0	2	18	7

## Key to Sample Course Listing

**RIT** .....Course Prefix

**239** .....Course Number

**RIT Clinical Ed V** .....Course Title

**Cl**  
**0** .....Number of Classroom Hours Per Week

**Lb**  
**2** .....Number of Laboratory Hours Per Week

**Cn**  
**18** .....Number of Clinical Hours Per Week or  
 Work Experience Hours Per Week

**Cr**  
**7** .....Number of Semester Hours Credit

**0 2 18 7** .....Total Number of  
 Classroom, Laboratory,  
 Clinical, and Semester  
 Hours Per Week

**Note: Not all courses require Cn Hours (Clinical or Work Experience Hours).**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Accounting

## Curriculum Description

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

## Accounting

A 25 10 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2003

### General Education Courses

ENG 111 Expository Writing	3	0	0	3
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#### Required Subject Areas

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

COM 231 Public Speaking	3	0	0	3
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ENG 114 Prof Research & Reporting	3	0	0	3
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ENG 115 Oral Communication	3	0	0	3
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- Humanities/Fine Arts Elective

(Select a course: See your advisor for list.)

- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
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MAT 140 Survey of Mathematics	3	0	0	3
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MAT 161 College Algebra	3	0	0	3
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- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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## Major Courses

### Core

ACC 120 Prin of Financial Acct	3	2	0	4
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ACC 121 Prin of Managerial Acct	3	2	0	4
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ACC 220 Intermediate Accounting I	3	2	0	4
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BUS 115 Business Law I	3	0	0	3
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### Required Subject Areas

- Taxes

(Select a course from the following.)

ACC 129 Individual Income Taxes	2	2	0	3
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ACC 131 Federal Income Taxes	2	2	0	3
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- Economics

(Select a course from the following.)

ECO 151 Survey of Economics	3	0	0	3
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ECO 251 Prin of Microeconomics	3	0	0	3
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ECO 252 Prin of Macroeconomics	3	0	0	3
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- Computers

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
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CIS 111 Basic PC Literacy	1	2	0	2
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### Other Major Courses

ACC 130 Business Income Taxes	2	2	0	3
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ACC 150 Acct Software Appl	1	2	0	2
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ACC 221 Intermediate Acct II	3	2	0	4
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ACC 225 Cost Accounting	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr
ACC 226 Adv Managerial Acct	3	0	0	3
ACC 250 Adv Accounting	3	0	0	3
ACC 269 Audit & Assurance Servcs	3	0	0	3
ACC 279 Advanced Auditing	3	0	0	3
BUS 116 Business Law II	3	0	0	3
CIS 120 Spreadsheet I	2	2	0	3
OST 131 Keyboarding	1	2	0	2

## Total Credit Hours: 70

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. High school accounting recommended

### Program Information

Graduation can continue their education at various colleges and universities in the local area and then sit for the CPA exam.

## Accounting

D 25 10 0

### Diploma

Day and Evening

POS Approved: Fall 2003

## Curriculum Description

Same as the Associate in Applied Science Degree.

### General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

## Major Courses

### Core

ACC 120 Prin of Financial Acct	3	2	0	4
ACC 121 Prin of Managerial Acct	3	2	0	4
ACC 220 Intermediate Accounting I	3	2	0	4
BUS 115 Business Law I	3	0	0	3
CIS 111 Basic PC Literacy	1	2	0	2
ACC 129 Individual Income Taxes	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr
<b>Other Major Courses</b>				
ACC 130 Business Income Taxes	2	2	0	3
BUS 116 Business Law II	3	0	0	3
CIS 120 Spreadsheet I	2	2	0	3
OST 131 Keyboarding	1	2	0	2

## Total Credit Hours: 37

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. High school accounting recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Air Conditioning, Heating, and Refrigeration Technology

D 35 10 0

## Diploma

Day and Evening

POS Approved: Fall 2004

## Curriculum Description

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments.

Diploma graduates should be able to assist in the startup, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

## General Education Courses

ENG 101 Applied Communications I	3	0	0	3
MAT 101 Applied Mathematics I	2	2	0	3

## Major Courses

### Core

AHR 110 Intro to Refrigeration	2	6	0	5
AHR 112 Heating Technology	2	4	0	4
AHR 113 Comfort Cooling	2	4	0	4
AHR 114 Heat Pump Technology	2	4	0	4
AHR 111 HVACR Electricity	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Other Major Courses

AHR 130 HVAC Controls	2	2	0	3
AHR 160 Refrigerant Certification	1	0	0	1
AHR 210 Residential Building Code	1	2	0	2
AHR 211 Residential System Design	2	2	0	3
AHR 212 Advanced Comfort Systems	2	6	0	4
● Welding Option				
(Select a course from the following.)				
AHR 250 HVAC System Diagnostics	0	4	0	2
WLD 112 Basic Welding Processes	1	3	0	2

## Total Credit Hours: 41

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. One unit of algebra recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Architectural Technology

## Curriculum Description

The Architectural Technology curriculum provides individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions.

Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, and computer applications as well as complete a design project. Optional courses may be provided to suit specific career needs.

Upon completion, graduates have career opportunities within the architectural, engineering, and construction professions as well as positions in industry and government.

## Architectural Technology

A 40 10 0

### Associate in Applied Science

Day

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 121 Algebra/Trigonometry I	2	2	0	3
ENG 114 Prof Research & Reporting	3	0	0	3
MAT 122 Algebra/Trigonometry II	2	2	0	3
PHY 131 Physics-Mechanics	3	2	0	4

### Required Subject Area

• Humanities/Fine Arts Elective	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

(See your advisor for course list.)

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

ARC 111 Intro to Arch Technology	1	6	0	3
ARC 112 Constr Mats & Methods	3	2	0	4
ARC 114 Architectural CAD	1	3	0	2
ARC 213 Design Project	2	6	0	4
ARC 230 Environmental Systems	3	3	0	4

### Required Subject Area

- Architectural Studios

(Select 6 hours from the following courses.)

ARC 113 Residential Arch Tech	1	6	0	3
ARC 160 Residential Design	1	6	0	3
ARC 211 Light Constr Technology	1	6	0	3

### Other Major Hours

ARC 131 Building Codes	2	2	0	3
ARC 141 Elem Structures for Arch	4	0	0	4
ARC 212 Commercial Constr Tech	1	6	0	3
ARC 221 Architectural 3-D CAD	1	4	0	3
ARC 231 Arch Presentations	2	4	0	4
ARC 240 Site Planning	2	2	0	3
ARC 250 Survey of Architecture	3	0	0	3
ARC 264 Digital Architecture	1	3	0	2

### Other Major Hours Elective

- (Select 4 hours from the following courses.)

ARC 235 Architectural Portfolio	2	3	0	3
ARC 114A Architectural CAD Lab	0	3	0	1
ARC 220 Adv Architect CAD	1	3	0	2

## Total Credit Hours: 74

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. One unit of algebra.
2. High School physics recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

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## Architectural Technology - CAD/Digital Imaging

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C 40 10 0

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

ARC 114 Architectural CAD	1	3	0	2
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#### Other Major Courses

ARC 221 Architectural 3-D CAD	1	4	0	3
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ARC 264 Digital Architecture	1	3	0	2
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#### Other Major Hours Elective

ARC 235 Architectural Portfolio	2	3	0	3
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ARC 220 Adv Architect CAD	1	3	0	2
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**Total Credit Hours: 12**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Associate Degree Nursing

A 45 10 0

## Associate in Applied Science

Day

POS Approved: Fall 2003

## Curriculum Description

The Associate Degree Nursing curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings.

Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community agencies.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
PSY 150 General Psychology	3	0	0	3

### Required Subject Area

- Biology Option

(Select 8 hours from one of the following sets of courses.)

#### Set Number 1

BIO 165 Anatomy and Physiology I	3	3	0	4
BIO 166 Anatomy and Physiology II	3	3	0	4

Course Title	Hours per Week			
	C	Lb	Cn	Cr

#### Set Number 2

BIO 168 Anatomy and Physiology I	3	3	0	4
BIO 169 Anatomy and Physiology II	3	3	0	4
• Humanities/Fine Arts Elective	3	0	0	3

(See your advisor for course list.)

## Major Courses

### Core

NUR 110 Nursing I	5	3	6	8
NUR 120 Nursing II	5	3	6	8
NUR 130 Nursing III	4	3	6	7
NUR 210 Nursing IV	5	3	12	10
NUR 220 Nursing V	4	3	15	10

### Other Major Courses

NUR 117 Pharmacology	1	3	0	2
NUR 244 Issues and Trends	2	0	0	2
PSY 241 Developmental Psych	3	0	0	3

### Required Subject Area

- SACS Computer Option

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
CIS 113 Computer Basics	0	2	0	1

## Total Credit Hours: 72

**Additional admissions requirements** to those beginning on page 7 in the **College Catalog**:

1. Completion of high school or college credits in biology and algebra.
2. Current cardiopulmonary resuscitation certification at the health care provider level.
3. Completion of program orientation requirements.
4. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in Associate Degree Nursing.
5. Completion of the **Forsyth Tech Student Medical Form**.

6. Certification as a certified nurse assistant I (CNA I).

### **Program Information**

In addition to traditional classroom instruction, students may also receive curriculum content through a variety of delivery technologies, including the Internet. Students who do not have personal computers with Internet access may use the computers in the college nursing laboratory and the Learning Center.

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant II, emergency medical technician, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Associate in Arts

A 10 10 0

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

The Associate in Arts curriculum is designed to transfer to bachelor's degree programs at senior colleges and universities. The course work includes composition and literature, humanities, mathematics, natural and social sciences, and physical education. Students who receive a grade average of C or better in each course are able to transfer these credits to a senior college or university and complete a bachelor's degree. The Associate in Arts curriculum concentrates on the humanities and social sciences and is recommended for those students who plan to continue with a bachelor's degree in one of these areas. **For course lists and electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (12 SHC)

HIS 121 Western Civilization I	3	0	0	3
HIS 122 Western Civilization II	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Natural Sciences/Mathematics (14 SHC)

- Natural Sciences (8 SHC)  
(Select 8 hours. Two courses, including accompanying lab work, from the biological and physical science disciplines are required.)
- Mathematics (6 SHC)

#### Mathematics A

(Select 3 hours from the following courses.)

MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

#### Mathematics B

(Select 3 hours from the following courses.)

CIS 115 Intro to Programming & Logic	2	2	0	3
MAT 151 Statistics I	3	0	0	3
MAT 162 College Trigonometry	3	0	0	3

### Other Required Hours (20-21 SHC)

- (If MAT 151 is selected, you must take the accompanying lab)
- |                               |   |   |   |   |
|-------------------------------|---|---|---|---|
| MAT 151A Statistics Lab       | 0 | 2 | 0 | 1 |
| PED 110 Fit and Well for Life | 1 | 2 | 0 | 2 |
- College Transfer Electives  
(Select 17-18 hours from general education, pre-major or elective courses.)

### Total Credit Hours: 64-65

## Associate in Arts/Pre-Major Business Administration

A 10 10 B

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in business administration. Students should consult with the four-year college they plan to attend for

Course Title	Hours per Week			
	C	Lb	Cn	Cr

further information on admission requirements in business administration. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (12 SHC)

POL 120 American Government	3	0	0	3
PSY 150 General Psychology	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3
• History				
HIS 121 Western Civilization I	3	0	0	3

### Natural Sciences/Mathematics (14-16 SHC)

• Natural Science (8SHC)				
Science Core Course	3	3	0	4

#### OR

Science Core Course	(3)	(2)	(0)	(4)
Science Core Course	3	3	0	4

#### OR

Science Core Course	(3)	(2)	(0)	(4)
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#### • Mathematics (6 SHC)

##### Mathematics A

MAT 161 College Algebra	3	0	0	3
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##### Mathematics B

MAT 263 Brief Calculus	3	0	0	3
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### Other Required Hours (20-21 SHC)

ACC 120 Prin of Financial Accounting	3	2	0	4
ACC 121 Prin of Managerial Accounting	3	2	0	4

Course Title	Hours per Week			
	C	Lb	Cn	Cr

CIS 110 Introduction to Computers	2	2	0	3
ECO 251 Prin of Microeconomics	3	0	0	3
ECO 252 Prin of Macroeconomics	3	0	0	3
MAT 151 Statistics	1	3	0	3
MAT 151A Statistics I Lab	0	2	0	1

### Total Credit Hours: 65

## Associate in Arts/Pre-Major Criminal Justice

A 10 10 D

### College Transfer

Day and Evening  
POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in criminal justice. Students should consult with the four-year college they plan to attend for further information on admission requirements in criminal justice. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (12 SHC)

HIS 121 Western Civilization I	3	0	0	3
POL 120 American Government	3	0	0	3
PSY 150 General Psychology	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Natural Sciences/Mathematics (14 SHC)

- Natural Sciences (8 SHC)

(Select 8 hours.)

- Mathematics (6 SHC)

### Mathematics A

(Select 3 hours from the following courses.)

MAT 140 Survey of Mathematics 3 0 0 3

MAT 161 College Algebra 3 0 0 3

### Mathematics B

MAT 151 Statistics I 3 0 0 3

## Other Required Hours (20-21 SHC)

CJC 111 Intro to Criminal Justice 3 0 0 3

CJC 121 Law Enforcement  
Operations 3 0 0 3

CJC 141 Corrections 3 0 0 3

MAT 151A Statistics I Lab 0 2 0 1

PED 110 Fit and Well for Life 1 2 0 2

## Other Required Hours Electives

CIS 110 Introduction to  
Computers 2 2 0 3

- College Transfer Electives 5

(Select 5 hours.)

## Total Credit Hours: 65

## Associate in Arts/Pre-Major Elementary Education

A 10 10 R

### College Transfer

Day and Evening

POS Approved: Fall 2005

## Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in elementary education. Students should consult with the four-year college they plan to attend for further information on admission requirements in

Course Title	Hours per Week			
	C	Lb	Cn	Cr

elementary education. **For electives, see your advisor.**

## English Composition (6 SHC)

ENG 111 Expository Writing 3 0 0 3

ENG 112 Argument-Based  
Research 3 0 0 3

## Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking 3 0 0 3

Humanities/Fine Arts Core Course 3 0 0 3

- Elementary Educ Humanities

(Select a course from the following.)

ART 111 Art Appreciation 3 0 0 3

MUS 110 Music Appreciation 3 0 0 3

- Literature

(Select a course from the following.)

ENG 231 American Literature I 3 0 0 3

ENG 232 American Literature II 3 0 0 3

## Social/Behavioral Sciences (12 SHC)

PSY 150 General Psychology 3 0 0 3

SOC 210 Introduction to  
Sociology 3 0 0 3

- History

HIS 121 Western Civilization I 3 0 0 3

HIS 122 Western Civilization II 3 0 0 3

## Natural Sciences/Mathematics (14-16 SHC)

- Natural Sciences (8 SHC)

BIO 111 General Biology 3 3 0 4

### AND

(Select one 4 hour set.)

### Science Set 1

CHM 151 General Chemistry I 3 3 0 4

### OR

### Science Set 2

PHY 110 Conceptual Physics 3 0 0 3

PHY 110A Conceptual Physics Lab 0 2 0 1

- Mathematics (6 SHC)

MAT 140 Survey of Mathematics 3 0 0 3

MAT 161 College Algebra 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Other Required Hours (20-21 SHC)

CIS 110	Introduction to Computers	2	2	0	3
EDU 216	Foundations of Education	3	0	0	3
HIS 131	American History I	3	0	0	3
HIS 132	American History II	3	0	0	3
PED 110	Fit and Well for Life	1	2	0	2
PSY 241	Developmental Psychology	3	0	0	3
PSY 281	Abnormal Psychology	3	0	0	3

**Total Credit Hours: 65**

## Associate in Arts/Pre-Major English

A 10 10 E

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in English. Students should consult with the four-year college they plan to attend for further information on admission requirements in English. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111	Expository Writing	3	0	0	3
ENG 112	Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231	Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course		3	0	0	3
Humanities/Fine Arts Core Course		3	0	0	3
Literature Core Course		3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Social/Behavioral Sciences (12 SHC)

HIS 121	Western Civilization I	3	0	0	3
Social/Behavioral Sciences Core Course		3	0	0	3
Social/Behavioral Sciences Core Course		3	0	0	3
Social/Behavioral Sciences Core Course		3	0	0	3

### Natural Sciences/Mathematics (14 SHC)

- Natural Sciences (8 SHC)

(Select 8 hours)

- Mathematics (6 SHC)

#### Mathematics A

(Select 3 hours from the following courses.)

MAT 140	Survey of Mathematics	3	0	0	3
MAT 161	College Algebra	3	0	0	3

#### Mathematics B

(Select 3 hours from the following courses.)

MAT 151	Statistics I	3	0	0	3
MAT 162	College Trigonometry	3	0	0	3

### Other Required Hours (20-21 SHC)

HIS 122	Western Civilization II	3	0	0	3
MAT 151A	Statistics I Lab	0	2	0	1
• Foreign Language Sequence					
Foreign Language		3	0	0	3
Foreign Language		3	0	0	3
• College Transfer Electives					10

(Select 10 hours.)

**Total Credit Hours: 64**

## Associate in Arts/ Pre-Major History

A 10 10 H

### College Transfer

Day and Evening

POS Approved: Fall 2005

(Continued on next page.)

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in history. Students should consult with the four-year college they plan to attend for further information on admission requirements in history. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (12 SHC)

HIS 121 Western Civilization I	3	0	0	3
HIS 122 Western Civilization II	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3

### Natural Sciences/Mathematics (14 SHC)

● Natural Sciences (8 SHC)				
(Select 8 hours)				
● Mathematics (6 SHC)				
<i>Mathematics A</i>				
(Select 3 hours from the following courses.)				
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

<i>Mathematics B</i>				
(Select 3 hours from the following courses.)				
MAT 151 Statistics I	3	0	0	3
MAT 162 College Trigonometry	3	0	0	3

### Other Required Hours (20-21 SHC)

MAT 151A Statistics I Lab	0	2	0	1
● History				

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

HIS 131 American History I	3	0	0	3
HIS 132 American History II	3	0	0	3
● Physical Education				
PED 110 Fit and Well for Life	1	2	0	2
● College Transfer Elective				11
(Select 11-12 hours.)				(12)

### Total Credit Hours: 64-65

## Associate in Arts/Pre-Major Middle Grades Education and Special Education

A 10 10 S
<b>College Transfer</b>
Day and Evening
POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in elementary education. Students should consult with the four-year college they plan to attend for further information on admission requirements in elementary education. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
● Elementary Educ Humanities				
(Select a course from the following.)				
ART 111 Art Appreciation	3	0	0	3
MUS 110 Music Appreciation	3	0	0	3
● Literature				
(Select a course from the following.)				

Course Title	Hours per Week			
	C	Lb	Cn	Cr

ENG 231 American Literature I	3	0	0	3
ENG 232 American Literature II	3	0	0	3

### Social/Behavioral Sciences (12 SHC)

PSY 150 General Psychology	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3

#### ● History

HIS 121 Western Civilization I	3	0	0	3
HIS 122 Western Civilization II	3	0	0	3

### Natural Sciences/Mathematics (14-16 SHC)

#### ● Natural Sciences (8 SHC)

BIO 111 General Biology	3	3	0	4
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#### AND

(Select one 4 hour set from the following.)

#### Science Set 1

CHM 151 General Chemistry I	3	3	0	4
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#### OR

#### Science Set 2

PHY 110 Conceptual Physics	3	0	0	3
PHY 110A Conceptual Physics Lab	0	2	0	1

#### ● Mathematics (6 SHC)

MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

### Other Required Hours (20-21 SHC)

CIS 110 Introduction to Computers	2	2	0	3
EDU 216 Foundations of Education	3	0	0	3
HIS 131 American History I	3	0	0	3
HIS 132 American History II	3	0	0	3
PED 110 Fit and Well for Life	1	2	0	2
PSY 241 Developmental Psychology	3	0	0	3
PSY 281 Abnormal Psychology	3	0	0	3

### Total Credit Hours: 65

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Associate in Arts/Pre-Major Nursing

A 10 10 I

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in nursing. Students should consult with the four-year college they plan to attend for further information on admission requirements in nursing. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (12 SHC)

HIS 121 Western Civilization I	3	0	0	3
PSY 150 General Psychology	3	0	0	3
PSY 241 Developmental Psychology	3	0	0	3
SOC 210 Intro to Sociology	3	0	0	3

### Natural Sciences/Mathematics (14 SHC)

#### ● Natural Sciences (8 SHC)

(Select 8 hours.)

#### ● Chemistry

(Select a set from the following.)

#### Set 1

CHM 151 General Chemistry I	3	3	0	4
CHM 152 General Chemistry II	3	3	0	4

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

### Set 2

CHM 131 Intro to Chemistry	3	0	0	3
CHM 131A Intro to Chemistry Lab	0	3	0	1
CHM 132 Organic and Bio Chemistry	3	3	0	4
● Mathematics (6 SHC)				

### Mathematics A

MAT 161 College Algebra	3	0	0	3
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### Mathematics B

MAT 151 Statistics I	3	0	0	3
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## Other Required Hours (20-21 SHC)

MAT 151A Statistics I Lab	0	2	0	1
PSY 281 Abnormal Psychology	3	0	0	3
SOC 213 Sociology of the Family	3	0	0	3

- Anatomy and Physiology

(Select a set from the following.)

### Set 1

BIO 165 Anatomy and Physiology I	3	3	0	4
BIO 166 Anatomy and Physiology II	3	3	0	4

### Set 2

BIO 168 Anatomy and Physiology I	3	3	0	4
BIO 169 Anatomy and Physiology I	3	3	0	4

- Biology

(Select a course from the following.)

BIO 175 General Microbiology	2	2	0	3
BIO 275 Microbiology	3	3	0	4

- College Transfer Elective 2

(Select 2 hours.)

**Total Credit Hours: 64**

## Associate in Arts/Pre-Major Physical Education

A 10 10 J

### College Transfer

Day and Evening

POS Approved: Fall 2005

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

## Curriculum Description:

This program of study is designed for students intending to pursue a bachelor's degree in physical education. Students should consult with the four-year college they plan to attend for further information on admission requirements in physical education. **For electives, see your advisor.**

## English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

## Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

## Social/Behavioral Sciences (12 SHC)

HIS 121 Western Civilization I	3	0	0	3
PSY 150 General Psychology	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3

## Natural Sciences/Mathematics (14 SHC)

● Natural Sciences (8 SHC)				
BIO 111 General Biology I	3	3	0	4
BIO 112 General Biology II	3	3	0	4

- Mathematics (6 SHC)

### Mathematics A

MAT 161 College Algebra	3	0	0	3
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### Mathematics B

MAT 151 Statistics I	3	0	0	3
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## Other Required Hours (20-21 SHC)

MAT 151A Statistics I Lab	0	2	0	1
PED 110 Fit and Well for Life	1	2	0	2
● Physical Education	0	*	0	1

(Select a course.)

- College Transfer Electives 16
- (Select 16 hours.)

**Total Credit Hours: 64**

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Associate in Arts/ Pre-Major Psychology

A 10 10 L

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in psychology. Students should consult with the four-year college they plan to attend for further information on admission requirements in psychology. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (12 SHC)

HIS 121 Western Civilization I	3	0	0	3
PSY 150 General Psychology	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3

### Natural Sciences/Mathematics (14 SHC)

● Natural Sciences (8 SHC)				
BIO 110 Principles of Biology	3	3	0	4
BIO 111 General Biology I	3	3	0	4

#### ● Mathematics (6 SHC)

##### *Mathematics A*

MAT 161 College Algebra	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

### *Mathematics B*

MAT 151 Statistics I	3	0	0	3
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### Other Required Hours (20-21 SHC)

MAT 151A Statistics I Lab	0	2	0	1
PED 110 Fit and Well for Life	1	2	0	2
● College Transfer Electives				17
(Select 17 hours.)				

**Total Credit Hours: 64**

## Associate in Arts/Pre-Major Social Work

A 10 10 Q

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in social work. Students should consult with the four-year college they plan to attend for further information on admission requirements in social work. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (12 SHC)

HIS 121 Western Civilization I	3	0	0	3
POL 120 American Government	3	0	0	3

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr
PSY 150 General Psychology	3	0	0	3
SOC 210 Intro to Sociology	3	0	0	3

### Natural Sciences/Mathematics (14 SHC)

- Natural Sciences (8 SHC)

BIO 110 Principles of Biology 3 3 0 4

BIO 111 General Biology I 3 3 0 4

- Mathematics (6 SHC)

#### Mathematics A

MAT 161 College Algebra 3 0 0 3

#### Mathematics B

MAT 151 Statistics I 3 0 0 3

### Other Required Hours (20-21 SHC)

MAT 151A Statistics I Lab 0 2 0 1

PED 110 Fit and Well for Life 1 2 0 2

- College Transfer Electives 17

(Select 17 hours.)

**Total Credit Hours: 64**

## Associate in Arts/Pre-Major Sociology

A 10 10 N

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in sociology. Students should consult with the four-year college they plan to attend for further information on admission requirements in sociology. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing 3 0 0 3

ENG 112 Argument-Based Research 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Humanities/Fine Arts (12 SHC)

COM 231 Public Speaking 3 0 0 3

Humanities/Fine Arts Core Course 3 0 0 3

Humanities/Fine Arts Core Course 3 0 0 3

Literature Core Course 3 0 0 3

### Social/Behavioral Sciences (12 SHC)

HIS 121 Western Civilization I 3 0 0 3

SOC 210 Intro to Sociology 3 0 0 3

Social/Behavioral Science Core Course 3 0 0 3

- Social/Behavioral Sciences

(Select a course from the following.)

SOC 213 Sociology of the Family 3 0 0 3

SOC 220 Social Problems 3 0 0 3

SOC 225 Social Diversity 3 0 0 3

SOC 240 Social Psychology 3 0 0 3

### Natural Sciences/Mathematics (14 SHC)

- Natural Sciences (8 SHC)

(Select 8 hours.)

- Mathematics (6 SHC)

#### Mathematics A

(Select a course from the following.)

MAT 140 Survey of Mathematics 3 0 0 3

MAT 161 College Algebra 3 0 0 3

#### Mathematics B

MAT 151 Statistics I 3 0 0 3

### Other Required Hours (20-21 SHC)

MAT 151A Statistics I Lab 0 2 0 1

PED 110 Fit and Well for Life 1 2 0 2

- College Transfer Electives 17

(Select 17 hours.)

**Total Credit Hours: 64**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Associate in Science

A 10 40 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

The College Transfer curriculum is designed to offer students an opportunity to take the first two years of a liberal arts college curriculum. The course work includes composition and literature, humanities, mathematics, natural and social sciences, and physical education. Students who maintain a grade average of C or better should be able to transfer these credits to a senior college or university and complete a bachelor's degree. The Associate in Science curriculum concentrates on mathematics and the physical and life sciences and is recommended for those students who plan to continue with a bachelor's degree in one of these areas. **For course lists and electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (9 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (9 SHC)

HIS 121 Western Civilization I	3	0	0	3
HIS 122 Western Civilization II	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3

### Natural Sciences/Mathematics (20 SHC)

- Natural Sciences (8 SHC)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

CHM 151 General Chemistry I	3	3	0	4
CHM 152 General Chemistry II	3	3	0	4
• Mathematics (8 SHC)				
MAT 175 Precalculus	4	0	0	4
MAT 271 Calculus I	3	2	0	4
• Mathematics Elective				4
(Select 4 hours.)				

### Other Required Hours (20-21 SHC)

MAT 157 Precalculus Lab	0	2	0	1
PED 110 Fit and Well for Life	1	2	0	2
• College Transfer Electives				17
(Select 13 hours of college transfer courses in mathematics, natural sciences, or computer science.)				
(Select 4 courses from general education, pre-major or elective courses.)				

### Total Credit Hours: 64

## Associate in Science/ Pre-Major Biology and Biology Education

A 10 40 A

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in biology. Students should consult with the four-year college they plan to attend for further information on admission requirements in biology. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Humanities/Fine Arts (9 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (9 SHC)

HIS 121 Western Civilization I	3	0	0	3
Social Behavioral Sciences Core Course	3	0	0	3
Social Behavioral Sciences Core Course	3	0	0	3

### Natural Sciences/Mathematics (24 SHC)

● Natural Sciences (16 SHC)				
BIO 111 General Biology I	3	3	0	4
BIO 112 General Biology II	3	3	0	4
CHM 151 General Chemistry I	3	3	0	4
CHM 152 General Chemistry II	3	3	0	4
● Mathematics (8 SHC)				
MAT 175 Precalculus	4	0	0	4
MAT 271 Calculus	3	2	0	4

### Other Required Hours (18-19 SHC)

MAT 175A Precalculus Lab	0	2	0	1
PED 110 Fit and Well for Life	1	2	0	2
● College Transfer Electives				15
(Select 15 hours.)				

### Total Credit Hours: 64

## Associate in Science/ Pre-Major Chemistry and Chemistry Education

A 10 40 B

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students

Course Title	Hours per Week			
	C	Lb	Cn	Cr

intending to pursue a bachelor's degree in chemistry. Students should consult with the four-year college they plan to attend for further information on admission requirements in chemistry. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (9 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (9 SHC)

HIS 121 Western Civilization I	3	0	0	3
PSY 150 General Psychology	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3

### Natural Sciences/Mathematics (20 SHC)

● Natural Sciences (12 SHC)				
CHM 151 General Chemistry I	3	3	0	4
CHM 152 General Chemistry II	3	3	0	4
PHY 251 General Physics I	3	3	0	4
● Mathematics (8 SHC)				
MAT 271 Calculus	3	2	0	4
MAT 272 Calculus II	3	2	0	4

### Other Required Hours (20-21 SHC)

CHM 251 Organic Chemistry I	3	3	0	4
CHM 252 Organic Chemistry II	3	3	0	4
PHY 252 General Physics II	3	3	0	4
● College Transfer Electives				8
(Select 3 hours from CIS or CSC prefix.)				
(Select 5 hours of electives.)				

### Total Credit Hours: 64

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Associate in Science/ Pre-Major Engineering

A 10 40 D

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description:

This program of study is designed for students intending to pursue a bachelor's degree in engineering. Students should consult with the four-year college they plan to attend for further information on admission requirements in engineering. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (9 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (9 SHC)

HIS 121 Western Civilization I	3	0	0	3
PSY 150 General Psychology	3	0	0	3
ECO 251 Principles of Microeconomics	3	0	0	3

### OR

ECO 252 Principles of Macroeconomics	3	0	0	3
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### Natural Sciences/Mathematics (20 SHC)

#### • Natural Sciences (12 SHC)

CHM 151 General Chemistry I	3	3	0	4
PHY 251 General Physics I	3	3	0	4
PHY 252 General Physics II	3	3	0	4

#### • Mathematics (8 SHC)

MAT 271 Calculus I	3	2	0	4
MAT 272 Calculus II	3	2	0	4

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Other Required Hours (20-21 SHC)

MAT 273 Calculus III	3	2	0	4
MAT 285 Differential Equations	3	0	0	3
CSC 134 C++ Programming	2	3	0	3
• College Transfer Electives				10
(Select 3-4 hours from CHM 152, DFT 170 or EGR 220.)				
(Select 7 hours of electives.)				

## Total Credit Hours: 64

## Associate in Science/ Pre-Major Mathematics

A 10 40 E

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in mathematics. Students should consult with the four-year college they plan to attend for further information on admission requirements in mathematics. **For electives, see your advisor.**

### English Composition (6 SHC)

ENG 111 Expository Writing	3	0	0	3
ENG 112 Argument-Based Research	3	0	0	3

### Humanities/Fine Arts (9 SHC)

COM 231 Public Speaking	3	0	0	3
Humanities/Fine Arts Core Course	3	0	0	3
Literature Core Course	3	0	0	3

### Social/Behavioral Sciences (9 SHC)

HIS 121 Western Civilization I	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3
Social/Behavioral Sciences Core Course	3	0	0	3

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Natural Sciences/Mathematics (20 SHC)

- Natural Sciences (8 SHC)

PHY 251 General Physics I 3 3 0 4

PHY 252 General Physics II 3 3 0 4

- Mathematics (12 SHC)

MAT 175 Precalculus I 4 0 0 4

MAT 271 Calculus I 3 2 0 4

MAT 272 Calculus II 3 2 0 4

### Other Required Hours (20-21 SHC)

MAT 175A Precalculus Lab 0 2 0 1

MAT 273 Calculus III 3 2 0 4

MAT 285 Differential Equations 3 0 0 3

CSC 134 C++ Programming 2 3 0 3

PED 110 Fit and Well for Life 1 2 0 2

PED Elective 1

- College Transfer Electives 6

(Select 3 additional hours of humanities.)

(Select 3 additional hours of social behavioral/sciences.)

**Total Credit Hours: 64**

## Associate in Science/ Pre-Major Mathematics Education

A 10 40 F

### College Transfer

Day and Evening

POS Approved: Fall 2005

### Curriculum Description

This program of study is designed for students intending to pursue a bachelor's degree in mathematics education. Students should consult with the four-year college they plan to attend for further information on admission requirements in mathematics. **For electives, see your advisor.**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### English Composition (6 SHC)

ENG 111 Expository Writing 3 0 0 3

ENG 112 Argument-Based  
Research 3 0 0 3

### Humanities/Fine Arts (9 SHC)

COM 231 Public Speaking 3 0 0 3

Humanities/Fine Arts Core Course 3 0 0

Literature Core Course 3 0 0 3

### Social/Behavioral Sciences (9 SHC)

HIS 121 Western Civilization I 3 0 0 3

PSY 150 General Psychology 3 0 0 3

PSY 241 Developmental  
Psychology 3 0 0 3

### Natural Sciences/Mathematics (20 SHC)

- Natural Sciences (8 SHC)

PHY 251 General Physics I 3 3 0 4

PHY 252 General Physics II 3 3 0 4

- Mathematics (12 SHC)

MAT 175 Precalculus I 4 0 0 4

MAT 271 Calculus I 3 2 0 4

MAT 272 Calculus II 3 2 0 4

### Other Required Hours (20-21 SHC)

EDU 216 Foundations in Education 3 2 0 4

MAT 175A Precalculus Lab 0 2 0 1

MAT 273 Calculus III 3 2 0 4

MAT 285 Linear Algebra 3 0 0 3

CSC 134 C++ Programming 2 3 0 3

- College Transfer Electives 6

(Select 3 additional hours of humanities.)

(Select 3 additional hours of social behavioral/sciences.)

**Total Credit Hours: 65**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## **Autobody Repair**

### **Curriculum Description**

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, MIG welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

## **Autobody Repair - Non-Structural Damage**

C 60 10 0 ND

### **Certificate**

Evening

POS Approved: Fall 2002

### **Major Courses**

#### **Core**

AUB 121 Non-Structural Damage I	1	4	0	3
AUB 122 Non-Structural Damage II	2	6	0	4
AUB 136 Plastics & Adhesives	1	4	0	3

#### **Other Major Courses**

AUB 162 Autobody Estimating	1	2	0	2
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**Total Credit Hours: 12**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## **Autobody Repair - Painting and Finishing**

C 60 10 0 PF

### **Certificate**

Evening

POS Approved: Fall 2002

### **Major Courses**

#### **Core**

AUB 111 Painting & Refinishing I	2	6	0	4
AUB 112 Painting & Refinishing II	2	6	0	4
AUB 114 Special Finishes	1	2	0	2

#### **Other Major Courses**

AUB 150 Automotive Detailing	1	3	0	2
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**Total Credit Hours: 12**

## **Autobody Repair - Structural Damage**

C 60 10 0 SD

### **Certificate**

Evening

POS Approved: Fall 2002

### **Major Courses**

#### **Core**

AUB 131 Structural Damage I	2	4	0	4
AUB 132 Structural Damage II	2	6	0	4
AUB 134 Autobody MIG Welding	1	4	0	3

#### **Other Major Courses**

AUB 160 Body Shop Operations	1	0	0	1
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**Total Credit Hours: 12**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Automotive Systems Technology

A 60 16 0

## Associate in Applied Science

Day and Evening

POS Approved: Fall 2003

## Curriculum Description

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic coursework. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

### Required Subject Areas

● Humanities/Fine Arts Elective 3 0 0 3

● Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

● Oral Communications Elective

(Select a course from the following.)

COM 231 Public Speaking 3 0 0 3

ENG 115 Oral Communication 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Major Courses

### Core

AUT 141 Suspension & Steering Sys	2	4	0	4
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AUT 151 Brake Systems	2	2	0	3
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### Required Subject Areas

● Electrical

(Select a course from the following.)

AUT 161 Electrical Systems	2	6	0	4
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● Engine Performance

(Select 5 hours from the following courses.)

AUT 181 Engine Performance-Electrical	2	3	0	3
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AUT 183 Engine Performance-Fuels	2	3	0	3
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AUT 185 Emission Controls	1	2	0	2
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AUT 282 Engine Elec Management	3	9	0	6
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### Other Major Courses

AUT 110 Intro to Auto Technology	2	2	0	3
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AUT 115 Engine Fundamentals	2	3	0	3
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AUT 116 Engine Repair	1	3	0	2
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AUT 152 Brake Systems Lab	0	2	0	1
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AUT 162 Chassis Elect & Electronics	2	2	0	3
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AUT 164 Automotive Electronics	2	2	0	3
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AUT 171 Heating & Air Conditioning	2	3	0	3
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AUT 221 Automatic Transmissions	2	6	0	4
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AUT 231 Manual Drive Trains/Axles	2	3	0	3
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AUT 232 Manual Dr Trains/Axles Lab	0	3	0	1
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AUT 281 Adv Engine Performance	2	2	0	3
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PHY 122 Applied Physics II	3	2	0	4
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### Required Subject Areas

### Other Major Hours Elective

(Select 4 hours from the following courses.)

AUT 112 Auto Shop Management	1	2	0	2
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AUT 186 Automotive Computer Appl	1	2	0	2
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COE 112 Co-op Work Experience I	0	0	20	2
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(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr
COE 122 Co-op Work Experience II	0	0	20	2

**Total Credit Hours: 68**

**Program Information**

The automotive systems technology program at Forsyth Tech is certified by the National Automotive Technician Education Foundation (NATEF). Per NATEF recommendations, students should be prepared to purchase his/her own tool set to take this course of study.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Automotive Systems Technology/Race Car Performance

A 60 16 A  
**Associate in Applied Science**  
 Day  
 POS Approved: Fall 2002

## Curriculum Description

Race Car Performance is a concentration under the curriculum title Automotive Systems Technology. The curriculum is designed to train students to build and maintain all aspects of a racing vehicle. Blueprint reading and basic welding skills will also be taught.

Course work includes racing engine assembly, racing engine preparation, chassis fabrication, sheet metal fabrication, blueprint reading, welding, race car set-up, record keeping of race car performance and other related topics. Students will develop skills through classroom and shop/lab activities.

Graduates should qualify for employment as an entry level engine preparation specialist, engine assembly specialist, chassis fabricator and welder, chassis set-up technician, interior sheet metal fabricator and general race car preparation technician.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
ENG 115 Oral Communication	3	0	0	3

### Required Subject Area

- Humanities/Fine Arts Elective 3 0 0 3  
 (See your advisor for course list.)
- Social/Behavioral Science Elective  
 (Select a course from the following.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

AUT 141 Suspension & Steering Sys	2	4	0	4
AUT 151 Brake Systems	2	2	0	3
AUT 161 Electrical Systems	2	6	0	4
AUT 164 Automotive Electronics	2	2	0	3
AUT 181 Engine Performance-Electrical	2	3	0	3
AUT 183 Engine Performance-Fuels	2	3	0	3

### Concentration Core Courses

WLD 110 Cutting Processes	1	3	0	2
AUB 134 Autobody MIG Welding	1	4	0	3
AUT 251 Introduction to Racing	3	0	0	3
AUT 252 Racing Engine Preparation	3	9	0	6
AUT 253 Race Engine Accessories	2	0	0	4
AUT 254 Chassis Fabrication	2	9	0	5
AUT 255 Sheet Metal Fabrication	1	3	0	2
AUT 256 Setting Up the Race Car	3	6	0	5

### Other Major Courses

AUT 115 Engine Fundamentals	2	3	0	3
AUT 116 Engine Repair	1	3	0	2
AUT 171 Heating & Air Conditioning	2	3	0	3
MEC 111 Machines Processes I	1	4	0	3

## Total Credit Hours: 76

# Basic Law Enforcement Technology (Certificate)

C 55 12 0

**Certificate**

Day and Evening

POS Approved: Fall 2003

**Curriculum Description**

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise.

This program utilizes State commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic, and alcohol beverage laws; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations.

Students must successfully complete and pass all units of study which include the certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriffs' Education and Training Standards Commission to receive a certificate.

**Major Courses**

**Core**

CJC 100 Basic Law  
Enforcement Training 8 30 0 18

**Total Credit Hours: 18**

**Admission Requirements:**

- 1. Must be citizen of the United States
- 2. Must possess a valid N.C. Driver's License
- 3. Must provide a copy of Social Security Card
- 4. Must provide proof of high school graduation or GED completion
- 5. Must provide a copy of birth certificate
- 6. Must be of good moral character
- 7. Must provide a certified copy of criminal record for all addresses for last 10 years
- 8. Must provide copy of DD-214 if applicant has military service
- 9. Must not have been convicted of a felony
- 10. Must not have committed or been convicted of a criminal offense for which the authorized
- 11. Must have a law enforcement agency sponsorship letter

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Biotechnology

A 20 10 0

## Associate in Applied Sciences

Day and Evening

POS Approved: Fall 2005

## Curriculum Description

The Biotechnology curriculum, which has emerged from molecular biology and chemical engineering, is designed to meet the increasing demands for skilled laboratory technicians in various fields of biological and chemical technology.

Course work emphasizes biology, chemistry, mathematics, and technical communications. The curriculum objectives are designed to prepare graduates to serve in three distinct capacities: research assistant to a biologist or chemist; laboratory technician/instrumentation technician; and quality control/quality assurance technician.

Graduates may find employment in various areas of industry and government, including research and development, manufacturing, sales, and customer service.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### Required Subject Areas

• Humanities/Fine Arts Elective	3	0	0	3
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(See your advisor for course list.)

• Social/Behavioral Science Elective				
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(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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• Natural Science/Math Elective				
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(Select a course from the following.)

MAT 110 Mathematical Measurement	2	2	0	3
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MAT 115 Mathematical Models	2	2	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

MAT 161 College Algebra	3	0	0	3
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MAT 175 Precalculus	4	0	0	4
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• Communication Elective

(Select a course from the following.)

COM 231 Public Speaking	3	0	0	3
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ENG 112 Argument-Based Research	3	0	0	3
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ENG 114 Prof Research & Reporting	3	0	0	3
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## Major Courses

### Core

BIO 111 General Biology I	3	3	0	4
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BIO 112 General Biology II	3	3	0	4
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BTC 181 Basic Lab Techniques	3	3	0	4
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CHM 131 Introduction to Chemistry	3	0	0	3
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CHM 131A Intro to Chemistry Lab	0	3	0	1
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CHM 132 Organic and Biochemistry	3	3	0	4
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### Other Major Courses

BIO 285 Research & Measurement	2	4	0	4
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CIS 110 Introduction to Computers	2	2	0	3
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CIS 172 Intro to the Internet	2	3	0	3
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COE 111 Co-op Work Experience I	0	0	10	1
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MAT 151 Statistics I	3	0	0	3
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MAT 151A Statistics I Lab	0	2	0	1
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### Required Subject Area

• Technical Specialty Electives

(Select 14 hours from the following courses.)

BIO 180 Biological Chemistry	2	2	0	3
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BIO 250 Genetics	3	3	0	4
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BIO 275 Microbiology	3	3	0	4
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BTC 281 Bioprocess Techniques	2	6	0	4
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BTC 285 Cell Culture	2	3	0	3
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BTC 286 Immunological Techniques	3	3	0	4
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BTC 288 Biotech Lab Experience	0	6	0	2
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CHM 263 Analytical Chemistry	3	4	0	5
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Course Title	Hours per Week			
	C	Lb	Cn	Cr
MAT 175A Precalculus Lab	0	2	0	1
PHY 121 Applied Physics I	3	2	0	4
PHY 151 College Physics I	3	2	0	4

**Total Credit Hours: 64**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Business Administration

## Curriculum Description

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

## Business Administration

A 25 12 0  
**Associate in Applied Science**  
 Day and Evening  
 POS Approved: Fall 2004

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

### Required Subject Areas

- English Option
- (Select a course from the following.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

COM 120 Interpersonal Communication	3	0	0	3
COM 231 Public Speaking	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
• Humanities/Fine Arts Elective	3	0	0	3
(See your advisor for course list.)				
• Natural Science/Math Elective				
(Select a course from the following.)				
MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3
• Social/Behavioral Science Elective				
(Select a course from the following.)				
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

ACC 120 Prin of Financial Acct	3	2	0	4
BUS 115 Business Law I	3	0	0	3
BUS 137 Principles of Management	3	0	0	3
MKT 120 Principles of Marketing	3	0	0	3

### Required Subject Area

• Economics				
(Select a course from the following.)				
ECO 151 Survey of Economics	3	0	0	3
ECO 251 Prin of Microeconomics	3	0	0	3
ECO 252 Prin of Macroeconomics	3	0	0	3
• Computer Applications				
(Select a course from the following.)				
CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2
OST 137 Office Software Applicat	1	2	0	2

### Other Major Courses

ACC 121 Prin of Managerial Acct	3	2	0	4
ACC 129 Individual Income Taxes	2	2	0	3
BUS 110 Introduction to Business	3	0	0	3
BUS 116 Business Law II	3	0	0	3
BUS 125 Personal Finance	3	0	0	3
BUS 270 Professional Development	3	0	0	3
CIS 120 Spreadsheet I	2	2	0	3

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

INT 110 International Business	3	0	0	3
LOG 110 Introduction to Logistics	3	0	0	3
OST 131 Keyboarding	1	2	0	2

### ***Required Subject Area***

- Business Elective

(Select a course from the following.)

ACC 225 Cost Accounting	3	0	0	3
BUS 225 Business Finance	2	2	0	3
BUS 230 Small Business Management	3	0	0	3
CIS 152 Database Concepts & Apps	2	2	0	3
CIS 165 Desktop Publishing I	2	2	0	3
CIS 172 Intro to the Internet	2	3	0	3
CIS 220 Spreadsheets II	1	2	0	2
MKT 223 Customer Service	3	0	0	3

**Total Credit Hours: 69**

**Additional admissions requirements** to those beginning on page 7 in the ***College Catalog***:

1. High school algebra I recommended.
2. High school keyboarding recommended.
3. High school accounting recommended.

## **Business Administration - Customer Service**

C 25 12 0 C

### **Certificate**

Day and Evening

POS Approved: Fall 2004

### **General Education Courses**

ENG 115 Oral Communication	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

### **Major Courses**

#### **Core**

CIS 111 Basic PC Literacy	1	2	0	2
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

### **Other Major Courses**

BUS 270 Professional Development	3	0	0	3
MKT 223 Customer Service	3	0	0	3

**Total Credit Hours: 14**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Business Administration/ Banking and Finance

A 25 12 A

## Associate in Applied Science

Day and Evening

POS Approved: Fall 2004

## Curriculum Description

Banking and Finance is a concentration under the curriculum title of Business Administration. This curriculum is designed to prepare individuals for a career with various financial institutions and other businesses.

Course work includes principles of banking, money and banking, lending fundamentals, banking and business law, and practices in the areas of marketing, management, accounting, and economics.

Graduates should qualify for a variety of entry-level jobs in banking and finance. Also available are employment opportunities with insurance, brokerage and mortgage companies, and governmental lending agencies.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

### Required Subject Areas

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
COM 231 Public Speaking	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
Humanities/Fine Arts Elective	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

(See your advisor for course list.)

- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

ACC 120 Prin of Financial Acct	3	2	0	4
BUS 115 Business Law I	3	0	0	3
BUS 137 Principles of Management	3	0	0	3
MKT 120 Principles of Marketing	3	0	0	3

### Required Subject Areas

- Economics

(Select a course from the following.)

ECO 151 Survey of Economics	3	0	0	3
ECO 251 Prin of Microeconomics	3	0	0	3
ECO 252 Prin of Macroeconomics	3	0	0	3

- Computer Applications

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2
OST 137 Office Software Applicat	1	2	0	2

### Concentration Core Courses

BAF 110 Principles of Banking	3	0	0	3
BAF 131 Fund of Bank Lending	3	0	0	3
BAF 141 Law & Banking: Principles	3	0	0	3
BAF 222 Money and Banking	3	0	0	3

### Other Major Courses

ACC 121 Prin of Managerial Acct	3	2	0	4
ACC 129 Individual Income Taxes	2	2	0	3
BAF 115 Marketing for Bankers	3	0	0	3
BAF 152 Trust Business	3	0	0	3
BAF 245 Bank Investments	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Ca	Cr

OST 131 Keyboarding	1	2	0	2
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***Required Subject Area***

- Computer Elective

(Select a course from the following.)

CIS 120 Spreadsheet I	2	2	0	3
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CIS 130 Survey of Operating Sys	2	3	0	3
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CIS 152 Database Concepts & Apps	2	2	0	3
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CIS 164 DTP Layout & Design	2	2	0	3
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CIS 165 Desktop Publishing I	2	2	0	3
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CIS 172 Intro to the Internet	2	3	0	3
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CIS 215 Hardware Install/Maint	2	3	0	3
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CIS 260 Business Graphics Apps	2	2	0	3
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**Total Credit Hours: 69**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. High school algebra I recommended.
2. High school keyboarding recommended.
3. High school accounting recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Business Administration/ Electronic Commerce

A 25 12 I  
**Associate in Applied Science**  
 Day  
 POS Approved: Fall 2003

## Curriculum Description

Electronic Commerce is a concentration under the title of Business Administration. This curriculum is designed to prepare individuals for a career in the Internet economy.

Course work includes topics related to electronic business, Internet strategy in business, basic business principles in the world of E-Commerce. Students will be able to demonstrate the ability to identify and analyze such functional issues as planning, technical systems, marketing, security, finance, law, design, implementation, assessment and policy issues at an entry level.

Graduates from this program will have a sound business educational base for life long learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and small to medium size businesses or industry.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

### Required Subject Areas

● English Option	(Select a course from the following.)			
COM 120 Interpersonal Communication	3	0	0	3
COM 231 Public Speaking	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

ENG 115 Oral Communication	3	0	0	3
● Humanities/Fine Arts Elective	3	0	0	3
(Select a 3 hour course. See your advisor for electives list.)				
● Natural Science/Math Elective	(Select a course from the following.)			
MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3
● Social/Behavioral Science Elective	(Select a course from the following.)			
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

ACC 120 Prin of Financial Acct	3	2	0	4
BUS 115 Business Law I	3	0	0	3
BUS 137 Principles of Management	3	0	0	3
MKT 120 Principles of Marketing	3	0	0	3

### Required Subject Areas

● Economics	(Select a course from the following.)			
ECO 151 Survey of Economics	3	0	0	3
ECO 251 Prin of Microeconomics	3	0	0	3
ECO 252 Prin of Macroeconomics	3	0	0	3

● Computer Applications	(Select a course from the following.)			
CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2
OST 137 Office Software Applicat.	1	2	0	2

### Concentration Core Courses

CIS 172 Intro to the Internet	2	3	0	3
ECM 168 Electronic Business	2	2	0	3
ECM 210 Intro. to E-Commerce	2	2	0	3
ECM 220 E-Commerce Plan.& Implem.	2	2	0	3
ECM 230 Capstone Project	1	6	0	3

### Other Major Courses

BUS 110 Introduction to Business	3	0	0	3
BUS 225 Business Finance	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr
ITN 160 Principles of Web Design	2	2	0	3
ITN 170 Intro to Internet Databases	2	2	0	3
MKT 224 International Marketing	3	0	0	3
OST 131 Keyboarding	1	2	0	2

**Total Credit Hours: 68**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Business Administration/ International Business

A 25 12 D  
**Associate in Applied Science**  
 Day and Evening  
 POS Approved: Fall 2005

## Curriculum Description

International Business is a concentration under the curriculum title of Business Administration. This curriculum prepares individuals for positions in international business through studies in business, social science, foreign language, and specialized courses in international marketing, law, economics, and trade practices.

Students will be expected to demonstrate language skills, a knowledge of geographic, political, and cultural differences, the ability to process import/export documentation, and a knowledge of international economics and business practices.

Employment opportunities are available in import/export departments, freight forwarder companies, customs houses, brokerage firms, international banking, state and federal organizations, world organizations, and other internationally active businesses.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

### Required Subject Areas

- English Option

Course Title	Hours per Week			
	C	Lb	Cn	Cr

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
COM 231 Public Speaking	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
● Humanities/Fine Arts Elective	3	0	0	3

(See your advisor for course list.)

- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

ACC 120 Prin of Financial Acct	3	2	0	4
BUS 115 Business Law I	3	0	0	3
BUS 137 Principles of Management	3	0	0	3
MKT 120 Principles of Marketing	3	0	0	3

### Required Subject Areas

- Economics

(Select a course from the following.)

ECO 151 Survey of Economics	3	0	0	3
ECO 251 Prin of Microeconomics	3	0	0	3
ECO 252 Prin of Macroeconomics	3	0	0	3

- Computer Applications

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2
OST 137 Office Software Applicat	1	2	0	2

### Concentration Core Courses

INT 110 International Business	3	0	0	3
INT 210 International Trade	3	0	0	3
INT 220 International Economics	3	0	0	3
INT 230 International Law	3	0	0	3
ACC 270 International Accounting	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Other Major Courses

INT 115	Global Communications	3	0	0	3
LOG 110	Introduction to Logistics	3	0	0	3
MKT 224	International Marketing	3	0	0	3
SPA 111	Elementary Spanish I	3	0	0	3
SPA 112	Elementary Spanish II	3	0	0	3

### Required Subject Area

#### ● Business Elective

(Select a course from the following.)

ACC 121	Prin of Managerial Acct	3	2	0	4
ACC 129	Individual Income Taxes	2	2	0	3
BAF 110	Principles of Banking	3	0	0	3
BUS 116	Business Law II	3	0	0	3
BUS 225	Business Finance	2	2	0	3
BUS 270	Professional Development	3	0	0	3
CIS 120	Spreadsheet I	2	2	0	3
CIS 172	Intro to the Internet	2	3	0	3
INT 180	Travel Study Abroad	3	0	0	3

**Total Credit Hours: 72**

## Business Administration/

## International Business

C 25 12 D

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Concentration Core Courses

INT 110	International Business	3	0	0	3
INT 210	International Trade	3	0	0	3

#### Other Major Courses

INT 115	Global Communications	3	0	0	3
MKT 224	International Marketing	3	0	0	3

**Total Credit Hours: 12**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Business Administration/Logistics Management

A 25 12 E  
 Associate in Applied Science  
 Day and Evening  
 POS Approved: Fall 2004

## Curriculum Description

Logistics Management is a concentration under the curriculum title of Business Administration. This curriculum prepares students for careers in transportation and warehousing through the study of the principles of organization and management in logistics.

Course work includes the international and domestic movement of goods from the raw materials source(s) through production and ultimately to the consumer. Courses in transportation, warehousing, inventory control, material handling, computerization, and federal transportation and OSHA regulations are emphasized.

Graduates should qualify for employment in logistics-related jobs such as material handling foreman, transportation supervisor, traffic manager, warehouse manager, and inventory control manager.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
<b><i>Required Subject Areas</i></b>				
● English Option				
(Select a course from the following.)				
COM 120 Interpersonal				
Communication	3	0	0	3
COM 231 Public Speaking	3	0	0	3
ENG 114 Prof Research &				
Reporting	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

ENG 115 Oral Communication	3	0	0	3
● Humanities/Fine Arts Elective	3	0	0	3
(See your advisor for course list.)				
● Natural Science/Math Elective				
(Select a course from the following.)				
MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3
● Social/Behavioral Science Elective				
(Select a course from the following.)				
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

ACC 120 Prin of Financial Acct	3	2	0	4
BUS 115 Business Law I	3	0	0	3
BUS 137 Principles of Management	3	0	0	3
MKT 120 Principles of Marketing	3	0	0	3

### Required Subject Areas

● Economics					
(Select a course from the following.)					
ECO 151	Survey of Economics	3	0	0	3
ECO 251	Prin of Microeconomics	3	0	0	3
ECO 252	Prin of Macroeconomics	3	0	0	3
● Computer Applications					
(Select a course from the following.)					
CIS 110	Introduction to Computers	2	2	0	3
CIS 111	Basic PC Literacy	1	2	0	2
OST 137	Office Software Applicat	1	2	0	2

### Concentration Core Courses

LOG 110 Introduction to Logistics	3	0	0	3
LOG 120 Global Logistics	3	0	0	3
LOG 210 Fleet Management	3	0	0	3
LOG 220 Logistics Management	3	0	0	3
LOG 230 Transportation Management	3	0	0	3

### Other Major Courses

BUS 151 People Skills	3	0	0	3
BUS 231 Computerized Inventory	2	2	0	3
CIS 120 Spreadsheet I	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr
INT 110 International Business	3	0	0	3
LOG 215 Supply Chain Management	3	0	0	3
LOG 240 Purchasing Logistics	3	0	0	3
MKT 224 International Marketing	3	0	0	3

***Required Subject Area***

● Business Elective

(Select a course from the following.)

ACC 121 Prin of Managerial Acct	3	2	0	4
BUS 110 Introduction to Business	3	0	0	3
BUS 225 Business Finance	2	2	0	3
BUS 230 Small Business Management	3	0	0	3
CIS 152 Database Concepts & Apps	2	2	0	3
CIS 165 Desktop Publishing I	2	2	0	3
CIS 172 Intro to the Internet	2	3	0	3
CIS 220 Spreadsheets II	1	2	0	2
MKT 223 Customer Service	3	0	0	3

**Total Credit Hours: 72**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Cardiovascular Sonography/Adult Echocardiography

D 45 16 0 AE

## Diploma

Day

POS Approved: Fall 2003

## Curriculum Description

The Cardiovascular Sonography curriculum provides the individual with the knowledge and skills necessary to acquire, process, and evaluate the human heart and vascular structures. A cardiovascular sonographer uses high frequency sound waves to produce images of the heart and vascular structures.

Course work includes effective communication and patient care skills combined with a knowledge of physics, human anatomy, physiology, and pathology, all of which are essential to obtaining high quality sonographic images.

Graduates may be eligible to apply to the American Registry of Diagnostic Medical Sonographers for examinations in physics, cardiovascular physics, vascular physics, and adult echocardiography. Graduates may find employment in hospitals, physicians' offices, mobile services, and educational institutions. **Individuals entering this program must have an A.A.S. degree in a health field or a bachelor's degree in any field.**

## General Education Courses

ENG 111 Expository Writing 3 0 0 3

## Major Courses

### Core

BIO 166 Anatomy and Physiology II 3 3 0 4

Course Title	Hours per Week			
	C	Lb	Cn	Cr

CVS 160 CVS Clinical Ed I 0 0 15 5

CVS 161 CVS Clinical Ed II

CVS 162 CVS Clinical Ed III 0 0 15 5

CVS 163 Echo I 3 2 0 4

CVS 164 Echo II 3 2 0 4

SON 111 Sonographic Physics 3 3 0 4

### Required Subject Area

- Anatomy and Physiology

(Select a course from the following.)

BIO 163 Basic Anat & Physiology 4 2 0 5

BIO 166 Anatomy and Physiology II 3 3 0 4

### Other Major Courses

BIO 165 Anatomy and Physiology I 3 3 0 4

CVS 279 Cardiovascular Physics 3 2 0 4

## Total Credit Hours: 45

**Additional admissions requirements** to those beginning on page 7 in the **College Catalog**:

1. Completion of high school or college credits in biology, chemistry, and algebra. Successful completion of a physics course prior to the first semester of program enrollment is recommended.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the health care provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in Cardiovascular Sonography/Adult Echocardiography.
6. Completion of the **Forsyth Tech Student Medical Form**.

### Program Information

This program has limited enrollment. Students are

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II, emergency medical technician, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process. Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Cardiovascular/ Vascular Interventional Technology

## Curriculum Description

The Cardiovascular/Vascular Interventional Technology curriculum teaches students to use specialized equipment to visualize vascular structures and to assist physicians in diagnostic and interventional procedures.

The technologist, through academic and clinical studies, is prepared to provide quality patient care and professional communication skills while performing scheduled and emergency angiographic studies utilizing sterile technique, advanced radiographic and specialty equipment, and radiation protection techniques. Graduates of this program may be eligible to sit for the American Registry of Radiologic Technologists Advanced Level Examination in Cardiovascular Interventional Technology. Technologists may find employment in medical facilities where vascular, cardiovascular, and/or interventional imaging procedures are performed. Individuals entering this curriculum must be registered or registry eligible radiologic technologists by the ARRT.

# Cardiovascular/ Vascular Interventional Technology - Cardiac

C 45 14 0 C

## Certificate

Day

POS Approved: Fall 2004

Each certificate runs for six (6) months and is

Course Title	Hours per Week			
	C	Lb	Cn	Cr

offered once a year.

## 1st SIX (6) MONTH CERTIFICATE

### (Emphasis on Cardiac)

Begins fall semester and continues through first-half of spring semester

CIT 211	Patient Care	1	2	0	2
CIT 212	Cardiac Equip & Supplies	2	0	0	2
CIT 213	Radiographic Pharmacology	1	0	0	1
CIT 214	Cardiac Procedures	3	0	0	3
CIT 230	Cardiac Interven Clinical	0	0	27	9
CIT 261	CIT Cardiac Exam Prep	1	0	0	1

**Total Credit Hours: 18**

# Cardiovascular/ Vascular Interventional Technology - Vascular

C 45 14 0 V

## Certificate

Day

POS Approved: Fall 2004

Each certificate runs for six (6) months and is offered once a year.

## 2nd SIX (6) MONTH CERTIFICATE

### (Emphasis on Vascular)

Begins spring semester and continues through summer term.

CIT 211	Patient Care	1	2	0	2
CIT 213	Radiographic Pharmacology	1	0	0	1
CIT 215	Vascular Equip & Supplies	2	0	0	2
CIT 217	Vascular Procedures	3	0	0	3
CIT 235	Vascular Interven Clin	0	0	27	9
CIT 262	CIT Vascular Exam Prep	1	0	0	1

**Total Credit Hours: 18**

(Continued on next page.)

**Additional admissions requirements** to those beginning on page 7 in the **College Catalog**:

1. Current cardiopulmonary resuscitation certification at the health care provider level.
2. Completion of program orientation requirements which may include observational hours prior to acceptance.
3. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in Cardiovascular/Vascular Interventional programs.
4. Completion of the **Forsyth Tech Student Medical Form**.
5. Applicants must pass the ARRT Registry within 12 weeks of semester start, or be dropped from the program.

Students may earn a diploma in Cardiovascular/Vascular Interventional Technology by completing both the Cardio and Vascular certificate program and taking six hours of general education courses.

### **Program Information**

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II, emergency medical technician, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

Re-admission may be possible but requires re-application and approval by the college. Cardiovascular interventional technology is considered to be a safe profession in terms of radiation exposure; however, special limits have been established for occupationally exposed declared pregnant women to ensure that the probability of birth defects is negligible. A copy of the program's pregnancy policy is included in the Cardiovascular Interventional Program Student Handbook and is available to anyone upon request.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Carpentry

## Curriculum Description

The Carpentry curriculum is designed to train students to construct residential structures using standard building materials and hand and power tools. Carpentry skills and a general knowledge of residential construction will also be taught.

Course work includes footings and foundations, framing, interior and exterior trim, cabinetry, blueprint reading, residential planning and estimating, and other related topics. Students will develop skills through hands-on participation.

Graduates should qualify for employment in the residential building construction field as rough carpenters, framing carpenters, roofers, maintenance carpenters, and other related job titles.

## Carpentry (Diploma)

D 35 18 0

### Diploma

Day

POS Approved: Fall 2001

## General Education Courses

ENG 101	Applied Communications I	3	0	0	3
MAT 101	Applied Mathematics I	2	2	0	3

## Major Courses

### Core

BPR 130	Blueprint Reading/Const	1	2	0	2
CAR 113	Carpentry III	3	9	0	6
CAR 115	Res Planning/Estimating	3	0	0	3
CAR 110	Introduction to Carpentry	2	0	0	2
CAR 111	Carpentry I	3	15	0	8

Course Title	Hours per Week			
	C	Lb	Cn	Cr

CAR 112	Carpentry II	3	15	0	8
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### Other Major Courses

CAR 114	Residential Bldg Codes	3	0	0	3
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## Total Credit Hours: 38

## Carpentry-Framing

C 35 18 0

### Certificate

Day

POS Approved: Fall 2001

## Major Courses

### Core

CAR 111	Carpentry I	3	15	0	8
CAR 112	Carpentry II	3	15	0	8

## Total Credit Hours: 16

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# **Computed Tomography & Magnetic Resonance Imaging Technology**

## **Curriculum Description**

The Computed Tomography and Magnetic Resonance Imaging Technology curriculum, a specialty for radiographers, prepares the individual to use specialized equipment to visualize cross-sectional anatomical structures and aid physicians in the demonstration of pathologies and disease processes. *Individuals entering this curriculum must be registered or registry eligible radiologic technologists by the ARRT.*

Course work prepares the technologist to provide patient care and perform studies utilizing imaging equipment, professional communication, and quality assurance in scheduled and emergency procedures through academic and clinical studies.

Graduates may be eligible to sit for the American Registry of Radiologic Technologist Advanced-Level testing in Computed Tomography and/or Magnetic Resonance Imaging examinations. They may find employment in facilities which perform these imaging procedures.

## **Computed Tomography & Magnetic Resonance Imaging Technology**

D 45 20 0

### **Technical Specialty Diploma**

POS Approved: Fall 2003

### **General Education Courses**

ENG 111 Expository Writing	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

### **Required Subject Area**

- Anatomy and Physiology

(Select a course from the following.)

BIO 163 Basic Anat & Physiology	4	2	0	5
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BIO 165 Anatomy and Physiology I	3	0	0	4
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BIO 168 Anatomy and Physiology I	3	0	0	4
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## **Major Courses**

### **Core**

CAT 210 CT Physics & Equipment	3	0	0	3
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CAT 211 CT Procedures	4	0	0	4
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MRI 210 MRI Physics and Equipment	3	0	0	3
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MRI 211 MRI Procedures	4	0	0	4
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### **Required Subject Areas**

- CAT Clinical Practicum

(Select 8 hours from the following courses.)

CAT 223 CT Clinical Practicum	0	0	9	3
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CAT 224 CT Clinical Practicum	0	0	12	4
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CAT 225 CT Clinical Practicum	0	0	15	5
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CAT 226 CT Clinical Practicum	0	0	18	6
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CAT 227 CT Clinical Practicum	0	0	21	7
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CAT 228 CT Clinical Practicum	0	0	24	8
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CAT 231 CT Clinical Practicum	0	0	33	11
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- MRI Clinical Practicum

(Select 9 hours from the following courses.)

MRI 223 MRI Clinical Practicum	0	0	9	3
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MRI 224 MRI Clinical Practicum	0	0	12	4
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MRI 225 MRI Clinical Practicum	0	0	15	5
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MRI 226 MRI Clinical Practicum	0	0	18	6
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MRI 227 MRI Clinical Practicum	0	0	21	7
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MRI 228 MRI Clinical Practicum	0	0	24	8
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MRI 231 MRI Clinical Practicum	0	0	33	11
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### **Other Major Courses**

### **Required Subject Area**

- CT/MRI Other Major Hours Elective

(Select at least 1 hour from the following courses.)

ACA 111 College Student Success	1	0	0	1
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COE 111 Co-op Work Experience I	0	0	10	1
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COE 112 Co-op Work Experience I	0	0	20	2
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(Continued on next page.)

Course Title	Hours per Week				
	C	Lb	Cn	Cr	
COE 121 Co-op Work					
Experience II	0	0	10	1	
MRI 212 MR Cardiac Physics & Proc	4	0	0	4	

**Total Credit Hours: 39**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Written recommendations from the radiography technology program coordinator.
2. Current cardiopulmonary resuscitation certification at the health care provider level.
3. Completion of program orientation requirements.
4. Overall grade point average of 2.5 in radiography technology program.
5. Completion of the *Forsyth Tech Student Medical Form*.

**Program Information**

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II, emergency medical technician, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, CAT or MRI prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week				
	C	Lb	Cn	Cr	
<b>Computed Tomography &amp; Magnetic Resonance Imaging Technology - Computed Tomography</b>					

C 45 20 0  
**Certificate**  
 Day  
 POS Approved: Fall 2003

**Major Courses**

<b>Core</b>					
CAT 210 CT Physics & Equipment	3	0	0	3	
CAT 211 CT Procedures	4	0	0	4	
CAT 223 CT Clinical Practicum	0	0	9	3	
CAT 228 CT Clinical Practicum	0	0	24	8	

**Total Credit Hours: 18**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Current cardiopulmonary resuscitation certification at the health care provider level.
2. Completion of program orientation required.
3. Overall grade point average of 2.5 in radiography technology program.
4. Completion of the *Forsyth Tech Student Medical Form*.

**Program Information**

Students will need computer access. This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in their Radiologic Technology program. The Admissions Office can provide additional information on the selection process.

A grade of F or withdrawal from a CAT prefix course or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Re-admission may be possible but requires re-application and approval by the college.

# **Computed Tomography & Magnetic Resonance Imaging Technology - Magnetic Resonance Imaging**

C 45 20 0 M

## **Certificate**

Day

POS Approved: Fall 2003

from the curriculum. Re-admission may be possible but requires re-application and approval by the college.

## **Major Courses**

### **Core**

MRI 210 MRI Physics & Equipment	3	0	0	3
MRI 211 MRI Procedures	4	0	0	4
MRI 224 MRI Clinical Practicum	0	0	12	4
MRI 225 MRI Clinical Practicum	0	0	15	5

## **Total Credit Hours: 16**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Current cardiopulmonary resuscitation certification at the health care provider level.
2. Completion of program orientation required.  
Overall grade point average of 2.5 in radiography technology program.
3. Completion of the *Forsyth Tech Student Medical Form*.

### **Program Information**

Students will need computer access. This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in their Radiologic Technology program. The Admissions Office can provide additional information on the selection process.

A grade of F or withdrawal from a CAT prefix course or prerequisite course while enrolled in the program will result in dismissal of the student

Course Title	Hours per Week
	C Lb Cn Cr

# Computer Engineering Technology

A 40 16 0

## Associate in Applied Science

Day and Evening

POS Approved: Fall 2002

## Curriculum Description

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems.

Coursework includes mathematics, physics, electronics, digital circuits, and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 121 Algebra/Trigonometry	2	2	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

Course Title	Hours per Week
	C Lb Cn Cr

## Required Subject Areas

• Humanities/Fine Arts Elective	3	0	0	3
(See your advisor for course list.)				
• Social/Behavioral Science Elective				
(Select a course from the following.)				
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

CET 111 Computer Upgrade/Repair I	2	3	0	3
ELC 131 DC/AC Circuit Analysis	4	3	0	5
ELN 131 Electronic Devices	3	3	0	4
ELN 133 Digital Electronics	3	3	0	4
ELN 232 Intro to Microprocessors	3	3	0	4
MAT 122 Algebra/Trigonometry II	2	2	0	3
PHY 131 Physics-Mechanics	3	2	0	4
CSC 134 C++ Programming	2	3	0	3

### Other Major Courses

CET 211 Computer Upgrade/Repair II	2	3	0	3
ELN 237 Local Area Networks	2	3	0	3
CET 212 Integrated Mfg Systems	1	3	0	2
CET 222 Computer Architecture	2	0	0	2
CIS 111 Basic PC Literacy	1	2	0	2
CIS 130 Survey of Operating Sys	2	3	0	3
EGR 131 Intro To Electronics Tech	1	2	0	2
ELC 131A DC/AC Circuit Analy. Lab	0	3	0	1
ELN 132 Linear IC Applications	3	3	0	4
ELN 233 Microprocessor Systems	3	3	0	4
ELN 238 Advanced LANs	2	3	0	3

## Total Credit Hours: 74

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Three units of math beginning with algebra I.
2. Keyboarding proficiency skills highly recommended.
3. High school physics recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Computer Programming

## Curriculum Description

The Computer Programming curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

## Computer Programming

A 25 13 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

### General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Required Subject Areas

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
COM 231 Public Speaking	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
Humanities/Fine Arts Elective	3	0	0	3
(See your advisor for course list.)				
Natural Science/Math Elective				
(Select a course from the following.)				
MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3
Social/Behavioral Science Elective				
(Select a course from the following.)				
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 152 Database Concepts & Apps	2	2	0	3

### Required Subject Areas

- Basic Computer Skills

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2
Networking				
(Select a course from the following.)				
NET 110 Data Comm/Networking	2	2	0	3
CIS 282 Network Technology	3	0	0	3
Operating Systems				
CIS 130 Survey of Operating Sys	2	3	0	3
Programming				
(Select 6 hours from the following courses.)				
CSC 134 C++ Programming	2	3	0	3
CSC 135 COBOL Programming	2	3	0	3
CSC 138 RPG Programming	2	3	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr
CSC 139 Visual BASIC Programming	2	3	0	3
CSC 141 Visual C++ Programming	2	3	0	3
<ul style="list-style-type: none"> <li>Advanced Programming</li> </ul> (Select 6 hours from the following courses.)				
CSC 234 Advanced C++	2	3	0	3
CSC 235 Advanced COBOL	2	3	0	3
CSC 238 Advanced RPG	2	3	0	3
CSC 239 Advanced Visual BASIC	2	3	0	3
CSC 241 Advanced Visual C++	2	3	0	3

### Other Major Courses

ACC 120 Prin of Financial Acct	3	2	0	4
CIS 157 Database Programming I	2	2	0	3
CIS 172 Intro to the Internet	2	3	0	3
CIS 286 Systems Analysis & Design	3	0	0	3
CIS 288 Systems Project	1	4	0	3
CSC 148 JAVA Programming	2	3	0	3
CSC 248 Adv Internet Progr	2	3	0	3

### Required Subject Areas

- Computer Project

(Select a course from the following.)

CSC 284 Emerging Comp Prog Tech	2	3	0	3
CSC 285 Programming Project	2	2	0	3
<ul style="list-style-type: none"> <li>CIS Operating System Course</li> </ul> (Select a course from the following.)				
CIS 244 Operating System - AS/400	2	3	0	3
CIS 246 Operating System - UNIX	2	3	0	3

## Total Credit Hours: 72

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

- High school algebra I.
- High school accounting recommended.
- High school computer basics recommended.
- High school geometry recommended.
- High school keyboarding recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Computer Programming

D 25 13 0

### Diploma

Day and Evening

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

## Major Courses

### Core

CIS 115 Intro to Prog & Logic	2	2	0	3
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### Required Subject Areas

- Basic Computer Skills

CIS 111 Basic PC Literacy	1	2	0	2
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- Operating Systems

CIS 130 Survey of Operating Sys	2	3	0	3
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CIS 152 Database Concepts & Apps	2	2	0	3
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CSC 139 Visual BASIC Programming	2	3	0	3
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CSC 141 Visual C++ Programming	2	3	0	3
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- Advanced Programming

CSC 239 Advanced Visual BASIC	2	3	0	3
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CSC 241 Advanced Visual C++	2	3	0	3
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## Other Major Courses

CIS 172 Intro to the Internet	2	3	0	3
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CIS 286 Systems Analysis & Design	3	0	0	3
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### Required Subject Areas

- Computer Project

(Select a course from the following.)

CSC 284 Emerging Com Prog Tech	2	3	0	3
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CSC 285 Programming Project	2	2	0	3
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- CIS Operating System Course

(Select a course from the following.)

CIS 244 Operating System - AS/400	2	3	0	3
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(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

CIS 246 Operating System - UNIX	2	3	0	3
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**Total Credit Hours: 44**

**Additional admissions requirements** to those beginning on page 7 in the *College*

**Catalog:**

1. High school algebra I.
2. High school accounting recommended.
3. High school computer basics recommended.
4. High school geometry recommended.
5. High school keyboarding recommended.

## Computer Programming

C 25 13 0

**Certificate**

Day and Evening

POS Approved: Fall 2005

### Major Courses

**Core**

CIS 111 Basic PC Literacy	1	2	0	2
CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 130 Survey of Operating Sys	2	3	0	3
CIS 152 Database Concepts & Apps	2	2	0	3
CSC 139 Visual BASIC Programming	2	3	0	3

**Total Credit Hours: 14**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. High school algebra I.
2. High school accounting recommended.
3. High school computer basics recommended.
4. High school geometry recommended.
5. High school keyboarding recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Computer Programming - COBOL

C 25 13 0 C

**Certificate**

Day and Evening

POS Approved: Fall 2005

### Major Courses

**Core**

CIS 115 Intro to Prog & Logic	2	2	0	3
CSC 135 COBOL Programming	2	3	0	3
CSC 235 Advanced COBOL	2	3	0	3

### Other Major Courses

CIS 286 Systems Analysis & Design	3	0	0	3
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**Total Credit Hours: 12**

**Additional admissions requirements** to those beginning on page 7 in the *College*

**Catalog:**

1. High school algebra I.
2. High school accounting recommended.
3. High school computer basics recommended.
4. High school geometry recommended.
5. High school keyboarding recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Criminal Justice Technology

## Curriculum Description

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

## Criminal Justice Technology

A 55 18 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### Required Subject Areas

• Humanities/Fine Arts Elective	3	0	0	3
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(Select 3 hours. See your advisor for course list.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

• CJC English Research Elective  
(Select a course from the following.)

ENG 112 Argument Based Research	3	0	0	3
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ENG 114 Prof Research & Reporting	3	0	0	3
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• Social/Behavioral Science Elective  
(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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• Natural Science/Math Elective  
(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
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MAT 140 Survey of Mathematics	3	0	0	3
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MAT 161 College Algebra	3	0	0	3
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## Major Courses

### Core

CJC 111 Intro to Criminal Justice	3	0	0	3
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CJC 112 Criminology	3	0	0	3
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CJC 113 Juvenile Justice	3	0	0	3
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CJC 131 Criminal Law	3	0	0	3
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CJC 212 Ethics & Comm Relations	3	0	0	3
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CJC 221 Investigative Principles	3	2	0	4
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CJC 231 Constitutional Law	3	0	0	3
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### Other Major Courses

COE 111 Co-op Work Experience I	0	0	10	1
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### Required Subject Areas

• Computer Option

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
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CIS 111 Basic PC Literacy	1	2	0	2
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• Related Electives

(Select a course from the following.)

POL 130 State & Local Government	3	0	0	3
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PSY 241 Developmental Psych	3	0	0	3
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PSY 281 Abnormal Psychology	3	0	0	3
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SOC 225 Social Diversity	3	0	0	3
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• CJC Electives

(Select 18 hours from the following courses.)

CJC 114 Investigative Photography	1	2	0	2
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(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr
CJC 120 Interview/Interrogations	1	2	0	2
CJC 121 Law Enforcement Operations	3	0	0	3
CJC 122 Community Policing	3	0	0	3
CJC 132 Course Procedure & Evidence	3	0	0	3
CJC 141 Corrections	3	0	0	3
CJC 211 Counseling	3	0	0	3
CJC 213 Substance Abuse	3	0	0	3
CJC 214 Victimology	3	0	0	3
CJC 215 Organization & Administration	3	0	0	3
CJC 222 Criminalistics	3	0	0	3
CJC 225 Crisis Intervention	3	0	0	3
CJC 232 Civil Liability	3	0	0	3
CJC 233 Correctional Law	3	0	0	3
CJC 241 Community Based Corrections	3	0	0	3
CJC 251 Forensic Chemistry I	3	2	0	4
CJC 252 Forensic Chemistry II	3	2	0	4

### Required Subject Area

- Communications Elective

(Select a course from the following.)

COM 110 Introduction to Communication	3	0	0	3
COM 120 Interpersonal Communication	3	0	0	3
COM 231, Public Speaking	3	0	0	3

## Total Credit Hours: 64

### Criminal Justice Tracks

Some students may prefer to choose electives that will strengthen their background in either law enforcement or corrections work. The following electives should be chosen for either track.

#### Law Enforcement

Select from CJC 121, 132, 215 or 222

#### Corrections

Select from CJC 141, 211, 233 or 241

**Note:** Students successfully completing a basic

Course Title	Hours per Week			
	C	Lb	Cn	Cr
law enforcement training (BLET) course accredited by the North Carolina Criminal Justice Education and Training Standards Commission may receive credit for the following criminal justice courses: CJC 120, 131, 132, 221, 225 and 231, for a total of 18 semester hours that may be counted toward the associate in applied science degree in criminal justice technology. To qualify, students must have successfully passed the Criminal Justice Commission's comprehensive certification exam and must have completed BLET since 1985.				

## Criminal Justice Technology

C 55 18 0

### Certificate

Day and Evening

POS Approved: Fall 2005

## Major Courses

### Core

CJC 111 Intro to Criminal Justice	3	0	0	3
CJC 131 Criminal Law	3	0	0	3
CJC 231 Constitutional Law	3	0	0	3

### Other Major Courses

CJC Electives				
CJC 121 Law Enforcement Operations	3	0	0	3
CJC 141 Corrections	3	0	0	3
CJC 222 Criminalistics	3	0	0	3

## Total Credit Hours: 18

**Note:** Students successfully completing a Basic Law Enforcement Training Course accredited by the North Carolina Criminal Justice Education and Training Standards Commission may receive credit for the following criminal justice courses: CJC 131 and 231, for a total of six semester hours that may be counted toward the Certificate in Criminal Justice Technology. To

qualify, students must have successfully passed the Criminal Justice Commission's comprehensive certification exam and must have completed BLET since 1985.

This certificate will be offered during fall and spring semesters each year.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Criminal Justice Technology/Latent Evidence

A 55 18 A

## Associate in Applied Science

Day and Evening

POS Approved: Fall 2002

## Curriculum Description

Latent Evidence is a concentration under the curriculum of Criminal Justice Technology. This curriculum is designed to provide knowledge of latent evidence systems and operations. Study will focus on local, state, and federal law enforcement, evidence processing and procedures.

Students will learn both theory and hands-on analysis of latent evidence. They will learn fingerprint classification, identification, and chemical development. Students will record, cast, and recognize footwear and tire-tracks; and process crime scenes. Issues and concepts of communications and the use of computers and computer assisted design programs in crime scene technology will be discussed.

Graduates should qualify for employment in a variety of criminal justice organizations especially in local, state, and federal law enforcement, and correctional agencies.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 151 Statistics I	3	0	0	3

### Required Subject Areas

- CJC English Elective

(Select a course from the following.)

ENG 112 Argument-Based Research	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

- Humanities/Fine Arts Elective 3 0 0 3  
(Select a 3 hour course. See your your advisor for course list.)

- Natural Science/Math Elective  
(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

- Social/Behavioral Science Elective  
(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

CJC 111 Intro to Criminal Justice	3	0	0	3
CJC 112 Criminology	3	0	0	3
CJC 113 Juvenile Justice	3	0	0	3
CJC 131 Criminal Law	3	0	0	3
CJC 212 Ethics & Comm Relations	3	0	0	3
CJC 221 Investigative Principles	3	2	0	4
CJC 231 Constitutional Law	3	0	0	3

### Concentration Core Courses

CJC 114 Investigative Photography	1	2	0	2
CJC 144 Crime Scene Processing	2	3	0	3
CJC 146 Trace Evidence	2	3	0	3
CJC 222 Criminalistics	3	0	0	3
CJC 244 Footwear and Tire Imprint	2	3	0	3
CJC 245 Friction Ridge Analysis	2	3	0	3
CJC 246 Adv. Friction Ridge Analy	2	3	0	3
CJC 251 Forensic Chemistry I	3	2	0	4
CJC 145 Crime Scene CAD	2	3	0	3
CJC 252 Forensic Chemistry II	3	2	0	4

### Other Major Courses

COE 111 Co-op Work Experience I	0	0	10	1
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## Other Required Courses

MAT 151A Statistics I Lab	0	2	0	1
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## Total Credit Hours: 73

(Continued on next page.)

**Note:** Students successfully a basic law enforcement training course accredited by the North Carolina Criminal Justice Education and Training Standards Commission may receive credit for the following criminal justice courses: CJC 131 and 231, for a total of 6 semester hours that may be counted toward the associate in applied science degree in criminal justice technology. To qualify, students must have successfully passed the Criminal Justice Commission's comprehensive certification exam and must have completed BLET since 1985.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Dental Assisting (Diploma)

D 45 24 0

## Diploma

Day

POS Approved: Fall 2004

## Curriculum Description

The Dental Assisting curriculum prepares individuals to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing chair side and related office and laboratory procedures.

Course work includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences, and clinical practice. A combination of lecture, laboratory, and clinical experiences provide students with knowledge in infection/hazard control, radiography, dental materials, preventive dentistry, and clinical procedures.

Graduates may be eligible to take the Dental Assisting National Board Examination to become Certified Dental Assistants. As a Dental Assistant II, defined by the Dental Laws of North Carolina, graduates work in dental offices and other related areas.

## General Education Courses

### Required Subject Areas

- Anatomy and Physiology Elective

BIO 110 Principles of Biology 3 3 0 4

- Communication Elective

(Select a course from the following.)

COM 110 Introduction to Communication 3 0 0 3

COM 120 Interpersonal Communication 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

COM 231 Public Speaking 3 0 0 3

ENG 115 Oral Communication 3 0 0 3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

DEN 101 Preclinical Procedures 4 6 0 7

DEN 102 Dental Materials 3 4 0 5

DEN 103 Dental Sciences 2 0 0 2

DEN 111 Infection/Hazard Control 2 0 0 2

DEN 104 Dental Health Education 2 2 0 3

DEN 105 Practice Management 2 0 0 2

DEN 106 Clinical Practice I 1 0 12 5

DEN 107 Clinical Practice II 1 0 12 5

DEN 112 Dental Radiography 2 3 0 3

### Required Subject Area

- Dental Anatomy

DEN 110 Orofacial Anatomy 2 2 0 3

## Total Credit Hours: 47

**Additional admissions requirements** to those beginning on page 7 in the **College Catalog**:

1. High school diploma with completion of high school or college credits in biology and algebra.
2. Completion of program orientation requirements.
3. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
4. Completion of the **Forsyth Tech Student Medical Form** (includes an eye and dental examination).

## Program Information

This program has limited enrollment and has deadline requirements. Students are chosen by a selective admissions process based on grades

(Continued on next page.)

earned in required related courses (i.e. biology, communications, and psychology). The Admissions Office can provide additional information on the selection process. The Dental Assisting students are required to maintain a "C" average in both lecture and laboratory in order to satisfactorily complete any course in the dental assisting curriculum. They are allowed to make one (1) "D" in a DEN or BIO course and continue on academic probation. If they make a second "D" or the first "F" in any DEN or BIO course after that, then they are not allowed to continue in the full-time program.

Accreditation does require a specific number of class, lab, and clinical hours for the student to graduate, so there are strict attendance rules. If the student surpasses the allowed number of hours missed, they will be dropped from the program and will have to re-admit the next year. Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Dental Hygiene

A 45 26 0

## Associate in Applied Science

Day

POS Approved: Fall 2003

## Curriculum Description

The Dental Hygiene curriculum provides individuals with the knowledge and skills to access, plan, implement, and evaluate dental hygiene care for the individual and the community.

Students will learn to prepare the operatory, take patient histories, note abnormalities, plan care, teach oral hygiene, clean teeth, take x-rays, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care.

Graduates of this program may be eligible to take national and state/regional examinations for licensure which are required to practice dental hygiene. Employment opportunities include dental offices, clinics, schools, public health agencies, industry, and professional education.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3

### Required Subject Areas

- English

COM 231 Public Speaking	3	0	0	3
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- Humanities/Fine Arts Elective 3 0 0 3

(See your advisor for course list.)

- Natural Science/Math Elective

(Select 4 hours from one of the following set(s) of courses.)

### Set Number 1

CHM 130 Gen, Org, & Biochemistry	3	0	0	3
CHM 130 A Gen, Org, & Biochem Lab	0	2	0	1

Course Title	Hours per Week			
	C	Lb	Cn	Cr

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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## Major Courses

### Core

DEN 110 Orofacial Anatomy	2	2	0	3
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DEN 111 Infection/Hazard Control	2	0	0	2
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DEN 112 Dental Radiography	2	3	0	3
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DEN 120 Dental Hyg Preclinic Lec	2	0	0	2
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DEN 121 Dental Hygiene Precl Lab	0	6	0	2
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DEN 123 Nutrition/Dental Health	2	0	0	2
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DEN 124 Periodontology	2	0	0	2
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DEN 130 Dental Hygiene Theory I	2	0	0	2
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DEN 131 Dental Hygiene Clinic I	0	0	9	3
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DEN 140 Dental Hygiene Theory II	1	0	0	1
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DEN 141 Dental Hygiene Clinic II	0	0	6	2
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DEN 220 Dental Hygiene Theory III	2	0	0	2
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DEN 221 Dental Hygiene Clinic III	0	0	12	4
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DEN 223 Dental Pharmacology	2	0	0	2
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DEN 224 Material and Procedures	1	3	0	2
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DEN 230 Dental Hygiene Theory IV	1	0	0	1
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DEN 231 Dental Hygiene Clinic IV	0	0	12	4
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DEN 232 Community Dental Health	2	0	3	3
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DEN 233 Professional Development	2	0	0	2
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BIO 175 General Microbiology	2	2	0	3
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DEN 222 General & Oral Pathology	2	0	0	2
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### Required Subject Area

- Anatomy and Physiology

(Select a course from the following.)

BIO 163 Basic Anat & Physiology	4	2	0	5
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BIO 165 Anatomy and Physiology I	3	3	0	4
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(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

BIO 168 Anatomy and Physiology I	3	3	0	4
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## Total Credit Hours: 73

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. High school diploma with completion of high school or college credits in biology, algebra, and chemistry.
2. Completion of program orientation requirements.
3. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in Dental Hygiene.
4. Completion of the ***Forsyth Tech Student Medical Form*** (includes an eye and dental examination).
5. After minimum requirements are met, a 16- hour observation of a dental hygienist and a written paper submitted to the department chair before the March 1 deadline.

## Program Information

This program has limited enrollment and has selective admissions process based on grades earned in required related courses (i.e. biology, communications, and psychology). The Admissions Office can provide additional information on the selection process.

Accreditation does require a specific number of class, lab, and clinical hours for the student to graduate, so there are strict attendance rules. If the student surpasses the allowed number of hours missed, they will be dropped from the program and will have to re-admit the next year. Re-admission may be possible but requires re-application and approval by the college.

# Developmental Education

Developmental Education provides students with an opportunity to build academic skills and acquire the background which should facilitate success in their desired curriculum.

For applicants to a degree curriculum who, on the basis of test results and past performance, do not qualify for immediate admission to their chosen program of study, noncredit developmental course work is available and may be required as a prerequisite for registration in specific credit courses. Students taking the required developmental work may also take specified courses within their desired curriculum.

Students may transfer all applicable credit courses into their curriculum when the criteria have been met and developmental and selected curriculum courses have been completed. All credit courses within the student's chosen curriculum will then be applied toward graduation.

Some developmental courses are also open to students who wish to take them for personal benefit.

This program offers a series of courses for preparation, remediation, and guidance for students who, for a variety of reasons, do not meet the specific entrance requirements for the regular curriculums of their choice. Students who do meet the minimum entrance requirements but whose previous academic records indicate that they may have difficulty in successfully completing their curriculums are also advised to complete the necessary course work in the Developmental Education program.

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

The students' academic program will be individually designed to meet their specific preparatory and remedial needs. The courses will be selected from the developmental offerings and from technical and/or vocational credit courses.

**Developmental Education courses do not earn credit towards graduation from degree, diploma and certificate programs.**

ACA 111	College Student Success	1	0	0	1
ACA 118	College Study Skills	1	2	0	2
BIO 094	Concepts of Human Biology	3	2	0	4
CHM 092	Fundamentals of Chemistry	3	2	0	4
EFL 091	Composition I	3	2	0	4
ENG 060	Speaking English Well	2	0	0	2
ENG 070	Basic Language Skills	2	2	0	3
ENG 080	Writing Foundations	3	2	0	4
ENG 090	Composition Strategies	3	0	0	3
ENG 090A	Comp Strategies Lab	0	2	0	1
MAT 060	Essential Mathematics	3	2	0	4
MAT 070	Introductory Algebra	3	2	0	4
MAT 075	Geometry	3	2	0	4
MAT 080	Intermediate Algebra	3	2	0	4
MAT 090	Accelerated Algebra	3	2	0	4
RED 070	Essential Reading Skills	3	2	0	4
RED 080	Intro to College Reading	3	2	0	4
RED 090	Improved College Reading	3	2	0	4

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Early Childhood Education

## Curriculum Description

The Early Childhood Education curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

## Early Childhood Education

A 55 22 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### Required Subject Areas

- English Elective

(Select a course from the following.)

ENG 112 Argument-Based

Course Title	Hours per Week			
	C	Lb	Cn	Cr

Research	3	0	0	3
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ENG 114 Prof Research & Reporting

	3	0	0	3
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- Humanities/Fine Arts Elective
- (Select a course. See your advisor for course list.)

- Natural Science/Math Elective
- (Select a set from the following.)

#### Set 1

MAT115 Mathematical Models	2	2	0	3
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#### Set 2

MAT140 Survey of Mathematics	3	0	0	3
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#### Set 3

MAT 141 Mathematical Concepts I	3	0	0	3
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MAT 141A Mathematical Concepts I Lab	0	2	0	1
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#### Set 4

MAT161 College Algebra	3	0	0	3
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- Social/Behavioral Science Elective
- (Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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## Major Courses

### Core

COE 111 Co-op Work Experience I	0	0	10	1
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EDU 131 Child, Family & Commun	3	0	0	3
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EDU 146 Child Guidance	3	0	0	3
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EDU 151 Creative Activities	3	0	0	3
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EDU 153 Health, Safety & Nutrit	3	0	0	3
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EDU 221 Children with Exceptional	3	0	0	3
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EDU 271 Educational Technology	2	2	0	3
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EDU 280 Language & Literacy Exp	3	0	0	3
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### Required Subject Areas

- Early Childhood Education

(Select 4 hours from the following courses.)

EDU 119 Intro to Early Child Educ	4	0	0	4
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EDU 111 Early Childhood Cred I	2	0	0	2
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EDU 112 Early Childhood Cred II	2	0	0	2
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EDU 113 Family/Early Child Cred	2	0	0	2
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

- Child Development

(Select 6 hours from one of the following set(s) of courses.)

**Set Number 1**

EDU 144 Child Development I 3 0 0 3

EDU 145 Child Development II 3 0 0 3

**Set Number 2**

PSY 244 Child Development I 3 0 0 3

PSY 245 Child Development II 3 0 0 3

**Other Major Courses**

COE 121 Co-op Work  
Experience II 0 0 10 1

EDU 259 Curriculum Planning 3 0 0 3

SOC 210 Introduction to  
Sociology 3 0 0 3

**Required Subject Areas**

- Computer Option

(Select a course from the following.)

CIS 110 Introduction to  
Computers 2 2 0 3

CIS 111 Basic PC Literacy 1 2 0 2

- EDU Elective

(Select 6 hours from the following courses.)

EDU 185 Cognitive & Lang Act 3 0 0 3

EDU 216 Foundations in  
Education 3 2 0 4

EDU 234 Infants, Toddlers, &  
Twos 3 0 0 3

EDU 235 School-Age Dev &  
Program 2 0 0 2

EDU 250 PRAXIS I Preparation 1 0 0 1

EDU 252 Math and Sci Activities 3 0 0 3

EDU 261 Early Childhood  
Admin I 2 0 0 2

EDU 262 Early Childhood  
Admin II 3 0 0 3

EDU 263 Dev School-Age Prog 2 0 0 2

EDU 275 Effective Teach Train 2 0 0 2

EDU 282 Early Childhood Lit 3 0 0 3

ART 111 Art Appreciation 3 0 0 3

MUS 110 Music Appreciation 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

**Other Required Courses**

**Required Subject Area**

- ACA Elective

(Select a course from the following.)

ACA 111 College Student Success 1 0 0 1

ACA 118 College Study Skills 1 2 0 2

**Total Credit Hours: 66**

**Early Childhood Education -  
Administration**

C 55 22 0 A

**Certificate**

Day and Evening

POS Approved: Fall 2005

**Major Courses**

**Core**

EDU 131 Child, Family &  
Commun 3 0 0 3

EDU 144 Child Development I 3 0 0 3

EDU 145 Child Development II 3 0 0 3

**Required Subject Area**

- Early Childhood Education

(Select a 4 hour set from the following sets)

**Set A**

EDU 111 Early Childhood Cred I 2 0 0 2

EDU 112 Early Childhood Cred II 2 0 0 2

**Set B**

EDU 111 Early Childhood Cred I 2 0 0 2

EDU 113 Family/Early Child Cred 2 0 0 2

**Set C**

EDU 119 Intro to Early Child Educ 4 0 0 4

**Other Major Courses**

EDU 261 Early Childhood  
Admin I 2 0 0 2

EDU 262 Early Childhood  
Admin II 3 0 0 3

**Total Credit Hours: 18**

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

**Note:** All prerequisites must be met before courses can be taken. See an EDU advisor about prerequisites.

### Program Information

A North Carolina Early Childhood Administration credential is awarded upon completion of early childhood administration I and II plus 7 semester hours ECE/CD plus level I approved portfolio activities.

## Early Childhood Education - Early Childhood

C 55 22 0

### Certificate

Day and Evening

POS Approved: Fall 2005

### Other Major Hours

#### Core

EDU 144 Child Development I 3 0 0 3

EDU 145 Child Development II 3 0 0 3

EDU 146 Child Guidance 3 0 0 3

#### Required Subject Area

- Early Childhood Education

(Select a 4 hour set from the following sets)

#### Set A

EDU 111 Early Childhood Cred I 2 0 0 2

EDU 112 Early Childhood Cred II 2 0 0 2

#### Set B

EDU 111 Early Childhood Cred I 2 0 0 2

EDU 113 Family/Early Child Cred 2 0 0 2

#### Set C

EDU 119 Intro to Early Child Educ 4 0 0 4

#### Core

- (Select a course from the following.)

EDU 131 Child, Family & Commun 3 0 0 3

EDU 151 Creative Activities 3 0 0 3

EDU 221 Children with Exceptional 3 0 0 3

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

### Other Major Courses

EDU 234 Infants, Toddlers, &

Twos 3 0 0 3

EDU 261 Early Childhood Admin I 2 0 0 2

### Total Credit Hours: 15-16

**Note:** All prerequisites must be met before courses can be taken. See an EDU advisor about prerequisites.

## Early Childhood Education - Early Literacy

C 55 22 0 EL

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

COE 111 Co-op Work

Experience I 0 0 10 1

EDU 146 Child Guidance 3 0 0 3

EDU 280 Language & Literacy Exp 3 0 0 3

### Other Major Courses

EDU 185 Cognitive & Lang Act 3 0 0 3

EDU 282 Early Childhood Lit 3 0 0 3

### Total Credit Hours: 17

**Note:** All prerequisites must be met before courses can be taken. See an EDU advisor about prerequisites.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Early Childhood Education/Special Education

## Curriculum Description

Special Education is a concentration under the curriculum title of Early Childhood Education. This curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes childhood growth and development, physical/nutritional needs of children, care and guidance of children, and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and childcare programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Early Childhood Education/Special Education

A 55 22 A

## Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing 3 0 0 3

### **Required Subject Areas**

- English Elective

(Select a course from the following.)

ENG 112 Argument-Based Research 3 0 0 3

ENG 114 Prof Research & Reporting 3 0 0 3

- Humanities/Fine Arts Elective 3 0 0 3

(See your advisor for a course list.)

- Natural Science/Math Elective

(Select a set from the following.)

### *Set 1*

MAT 115 Mathematical Models 2 2 0 3

### *Set 2*

MAT 140 Survey of Mathematics 3 0 0 3

### *Set 3*

MAT 141 Mathematical Concepts I 3 0 0 3

MAT 141A Mathematical Concepts I Lab 0 2 0 1

### *Set 4*

MAT 161 College Algebra 3 0 0 3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

COE 111 Co-op Work Experience I 0 0 10 1

EDU 131 Child, Family & Commun 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr
EDU 146 Child Guidance	3	0	0	3
EDU 151 Creative Activities	3	0	0	3
EDU 153 Health, Safety & Nutrit	3	0	0	3
EDU 221 Children with Exceptional	3	0	0	3
EDU 271 Educational Technology	2	2	0	3
EDU 280 Language & Literacy Exp	3	0	0	3

Required Subject Areas

- Early Childhood Education

(Select 4 hours from the following courses.)

EDU 119 Intro to Early Child Educ	4	0	0	4
EDU 111 Early Childhood Cred I	2	0	0	2
EDU 112 Early Childhood Cred II	2	0	0	2
EDU 113 Family/Early Child Cred	2	0	0	2

- Child Development

(Select 6 hours from one of the following set(s) of courses.)

Set Number 1

EDU 144 Child Development I	3	0	0	3
EDU 145 Child Development II	3	0	0	3

Set Number 2

PSY 244 Child Development I	3	0	0	3
PSY 245 Child Development II	3	0	0	3

Concentration Core Courses

EDU 147 Behavior Disorders	3	0	0	3
EDU 148 Learning Disabilities	4	2	0	5
EDU 247 Physical Disabilities	3	0	0	3
EDU 248 Mental Retardation	2	2	0	3

Other Major Courses

COE 121 Co-op Work Experience II	0	0	10	1
SOC 210 Introduction to Sociology	3	0	0	3

Required Subject Area

- Computer Option

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2

Total Credit Hours: 67

Course Title	Hours per Week			
	C	Lb	Cn	Cr
<b>Early Childhood Education/Special Education</b>				
C 55 22 A				
<b>Certificate</b>				
Day and Evening				
POS Approved: Fall 2005				

Major Courses

Core

COE 111 Co-op Work Experience I	0	0	10	1
EDU 144 Child Development I	3	0	0	3
EDU 145 Child Development II	3	0	0	3
EDU 221 Children with Exceptional	3	0	0	3

Required Subject Areas

- Early Childhood Education

(Select a 4 hour set from the following sets)

Set A

EDU 111 Early Childhood Cred I	2	0	0	2
EDU 112 Early Childhood Cred II	2	0	0	2

Set B

EDU 111 Early Childhood Cred I	2	0	0	2
EDU 113 Family/Early Child Cred	2	0	0	2

Set C

EDU 119 Intro to Early Child Educ	4	0	0	4
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- Early Childhood Elective

(Select a course from the following.)

EDU 146 Child Guidance	3	0	0	3
EDU 147 Behavior Disorders	3	0	0	3
EDU 247 Physical Disabilities	3	0	0	3
EDU 248 Mental Retardation	2	2	0	3

Total Credit Hours: 17

Note: All prerequisites must be met before courses can be taken. See an EDU advisor about prerequisites.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Early Childhood Education/Teacher Associate

## Curriculum Description

Teacher Associate is a concentration under the curriculum title of Early Childhood Education. This curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

## Early Childhood Education/Teacher Associate

A 55 22 B

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

### General Education Courses

ENG 111 Expository Writing 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Required Subject Areas

#### ● English Elective

(Select a course from the following.)

ENG 112 Argument-Based Research 3 0 0 3

ENG 114 Prof Research & Reporting 3 0 0 3

#### ● Humanities/Fine Arts Elective

(See your advisor for course list.) 3 0 0 3

#### ● Natural Science/Math Elective

(Select a set from the following.)

#### Set 1

MAT 115 Mathematical Models 2 2 0 3

#### Set 2

MAT 140 Survey of Mathematics 3 0 0 3

#### Set 3

MAT 141 Mathematical Concepts I 3 0 0 3

MAT 141A Mathematical Concepts I Lab 0 2 0 1

#### Set 4

MAT 161 College Algebra 3 0 0 3

#### ● Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

COE 111 Co-op Work Experience I 0 0 10 1

EDU 131 Child, Family & Commun 3 0 0 3

EDU 146 Child Guidance 3 0 0 3

EDU 151 Creative Activities 3 0 0 3

EDU 153 Health, Safety & Nutrit 3 0 0 3

EDU 221 Children with Exceptional 3 0 0 3

EDU 271 Educational Technology 2 2 0 3

EDU 280 Language & Literacy Exp 3 0 0 3

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Required Subject Areas

- Early Childhood Education

(Select 4 hours from the following courses.)

EDU 119 Intro to Early Child Educ 4 0 0 4

EDU 111 Early Childhood Cred I 2 0 0 2

EDU 112 Early Childhood Cred II 2 0 0 2

EDU 113 Family/Early Child Cred 2 0 0 2

- Child Development

(Select 6 hours from one of the following set(s)

of courses.)

#### Set Number 1

EDU 144 Child Development I 3 0 0 3

EDU 145 Child Development II 3 0 0 3

#### Set Number 2

PSY 244 Child Development I 3 0 0 3

PSY 245 Child Development II 3 0 0 3

### Concentration Core Courses

COE 121 Co-op Work  
Experience II 0 0 10 1

EDU 118 Teach Assoc Princ &  
Prac 3 0 0 3

EDU 186 Reading & Writing  
Methods 3 0 0 3

EDU 235 School-Age Dev &  
Program 2 0 0 2

EDU 275 Effective Teach Train 2 0 0 2

EDU 285 Internship Exp-School  
Age 1 0 0 1

### Other Major Courses

EDU 250 PRAXIS I Preparation 1 0 0 1

EDU 252 Math & Sci Activities 3 0 0 3

SOC 210 Introduction to  
Sociology 3 0 0 3

### Required Subject Area

- Computer Option

(Select a course from the following.)

CIS 110 Introduction to  
Computers 2 2 0 3

CIS 111 Basic PC Literacy 1 2 0 2

**Total Credit Hours: 68**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Early Childhood Education/Teacher Associate - School Age

C 55 22 B

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

EDU 144 Child Development I 3 0 0 3

EDU 145 Child Development II 3 0 0 3

EDU 146 Child Guidance 3 0 0 3

EDU 235 School-Age Dev &  
Program 2 0 0 2

### Required Subject Areas

- Early Childhood Education

(Select a 4 hour set from the following sets)

#### Set A

EDU 111 Early Childhood Cred I 2 0 0 2

EDU 112 Early Childhood Cred II 2 0 0 2

#### Set B

EDU 111 Early Childhood Cred I 2 0 0 2

EDU 113 Family/Early Child Cred 2 0 0 2

#### Set C

EDU 119 Intro to Early Child Educ 4 0 0 4

- Early Childhood Education Elective

(Select a course from the following.)

EDU 131 Child, Family &  
Commun 3 0 0 3

EDU 221 Children with  
Exceptional 3 0 0 3

EDU 275 Effective Teach Train 2 0 0 2

### Total Credit Hours 17-18

**Note:** All prerequisites must be met before courses can be taken. See an EDU advisor about prerequisites.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Electrical/Electronics Technology

### Curriculum Description

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial, and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical/electronic systems.

## Electrical/Electronics Technology

D 35 22 0

### Diploma

Day

POS Approved: Fall 2002

### General Education Courses

ENG 101 Applied Communications I	3	0	0	3
MAT 101 Applied Mathematics I	2	2	0	3

### Major Courses

#### Core

ELC 112 DC/AC Electricity	3	6	0	5
ELC 113 Basic Wiring I	2	6	0	4

Course Title	Hours per Week			
	C	Lb	Cn	Cr

ELC 117 Motors and Controls	2	6	0	4
ELC 114 Basic Wiring II	2	6	0	4
ELN 229 Industrial Electronics	2	4	0	4

### Other Major Courses

BPR 130 Blueprint Reading/Const	1	2	0	2
ELC 115 Industrial Wiring	2	6	0	4
ELC 118 National Electrical Code	1	2	0	2
ISC 112 Industrial Safety	2	0	0	2
ISC 115 Construction Safety	2	0	0	2

### Total Credit Hours: 39

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. One unit of algebra recommended.

## Electrical/Electronics Technology

C 35 22 0

### Certificate

Day

POS Approved: Fall 2002

### Major Courses

#### Core

ELC 112 DC/AC Electricity	3	6	0	5
ELC 113 Basic Wiring I	2	6	0	4
ELC 114 Basic Wiring II	2	6	0	4

### Other Major Courses

ELC 118 National Electrical Code	1	2	0	2
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### Total Credit Hours: 15

# Electronics Engineering Technology

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication system, and power electronic systems. A broad based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET). TAC/ABET offices are located and can be reached at 111 Market Place, Suite 1050, Baltimore, MD 21202.

## Course Title

Hours per Week  
C Lb Cn Cr

## Electronics Engineering Technology

A 40 20 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2002

### General Education Courses

ENG 111	Expository Writing	3	0	0	3
MAT 121	Algebra/Trigonometry	2	2	0	3
ENG 114	Prof Research & Reporting	3	0	0	3

### Required Subject Areas

- Humanities/Fine Arts Elective 3 0 0 3  
(See your advisor for course list.)
- Social/Behavioral Science Elective  
(Select a course from the following.)

PSY 118	Interpersonal Psychology	3	0	0	3
PSY 150	General Psychology	3	0	0	3

### Major Courses

#### Core

ELC 131	DC/AC Circuit Analysis	4	3	0	5
ELN 131	Electronic Devices	3	3	0	4
ELN 132	Linear IC Applications	3	3	0	4
ELN 232	Intro to Microprocessors	3	3	0	4
MAT 122	Algebra/Trigonometry II	2	2	0	3
PHY 131	Physics-Mechanics	3	2	0	4
ELN 133	Digital Electronics	3	3	0	4

#### Other Major Courses

CET 111	Computer Upgrade/Repair I	2	3	0	3
CIS 111	Basic PC Literacy	1	2	0	2
EGR 131	Intro to Electronics Tech	1	2	0	2
ELN 229	Industrial Electronics	2	4	0	4
ELN 233	Microprocessor Systems	3	3	0	4
ELN 237	Local Area Networks	2	3	0	3
ELC 131A	DC/AC Circuit Analy. Lab	0	3	0	1
ELN 260	Prog Logic Controllers	3	3	0	4
MAT 223	Applied Calculus	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr
PHY 133 Physics-Sound & Light	3	2	0	4

## Total Credit Hours: 73

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. One unit of algebra.
2. High school physics recommended.

## Electronics Engineering Technology

C 40 20 0

### Certificate

Day and Evening

POS Approved: Fall 2002

## General Education Courses

MAT 121 Algebra/Trigonometry 2 2 0 3

## Major Courses

### Core

ELC 131 DC/AC Circuit Analysis 4 3 0 5

ELN 131 Electronic Devices 3 3 0 4

ELN 133 Digital Electronics 3 3 0 4

### Other Major Courses

ELC 131ADC/AC Circuit Analy. Lab 0 3 0 1

## Total Credit Hours: 17

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Emergency Medical Science

A 45 34 0

## Associate in Applied Science

Day

POS Approved: Summer 2003

## Curriculum Description

The Emergency Medical Science curriculum is designed to prepare graduates to enter the workforce as paramedics. Additionally, the program can provide an Associate Degree for individuals desiring an opportunity for career enhancement.

The course of study provides the student an opportunity to acquire basic and advanced life support knowledge and skills by utilizing classroom instruction, practical laboratory sessions, hospital clinical experience, and field internships with emergency medical service agencies.

Students progressing through the program may be eligible to apply for both state and national certification exams. Employment opportunities include ambulance services, fire and rescue agencies, air medical services, specialty areas of hospitals, industry, educational institutions, and government agencies.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
PHI 240 Introduction to Ethics	3	0	0	3

### Required Subject Areas

- Anatomy and Physiology Option

(Select a course from the following.)

BIO 165 Anatomy and Physiology I	3	3	0	4
BIO 168 Anatomy and Physiology I	3	3	0	4

Course Title	Hours per Week			
	C	Lb	Cn	Cr

- Communication Elective

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
COM 231 Public Speaking	3	0	0	3
ENG 115 Oral Communication	3	0	0	3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

EMS 110 EMT-Basic	5	6	0	7
EMS 120 Intermediate Intervention	2	3	0	3
EMS 130 Pharmacology I for EMS	1	3	0	2
EMS 131 Adv Airway Management	1	2	0	2
EMS 140 Rescue Scene Management	1	3	0	2
EMS 150 Emerg Vehicles & EMS Comm	1	3	0	2
EMS 210 Adv. Patient Assessment	1	3	0	2
EMS 220 Cardiology	2	6	0	4
EMS 240 Special Needs Patients	1	2	0	2
EMS 250 Adv. Medical Emergencies	2	3	0	3
EMS 260 Advanced Trauma Emergencies	1	3	0	2
EMS 270 Life Span Emergencies	2	2	0	3
EMS 285 EMS Capstone	1	3	0	2

### Required Subject Areas

- Emergency Medical Care

(Select a course from the following.)

EMS 235 EMS Management	2	0	0	2
EMS 115 Defense Tactics for EMS	1	3	0	2
EMS 125 EMS Instructor Methodology	1	2	0	2
EMS 230 Pharmacology II for EMS	1	3	0	2

- Clinical/Field Internship I

(Select a 2 hour set of courses from the following sets.)

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Set Number 1

EMS 121 EMS Clinical Practicum I	0	0	6	2
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### Set Number 2

EMS 122 EMS Hospital Clinical I	0	0	3	1
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COE 111 Co-op Work Experience I	0	0	10	1
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- Clinical/Field Internship II

(Select a 3 hour set from one of the following sets.)

### Set Number 1

EMS 221 EMS Clinical Practicum II	0	0	9	3
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### Set Number 2

EMS 222 EMS Hospital Clinical II	0	0	6	2
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COE 121 Co-op Work Experience II	0	0	10	1
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- Clinical/Field Internship III

(Select a 3 hour set from one of the following sets.)

### Set Number 1

EMS 231 EMS Clinical Pract III	0	0	9	3
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### Set Number 2

EMS 232 EMS Hospital Clinical III	0	0	6	2
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COE 131 Co-op Work Experience III	0	0	10	1
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- Clinical/Field Internship IV

(Select a 3 hour set from one of the following sets.)

### Set Number 1

EMS 241 EMS Clinical Practicum IV	0	0	9	3
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### Set Number 2

EMS 242 EMS Hospital Clinical IV	0	0	6	2
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COE 211 Co-op Work Experience IV	0	0	10	1
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## Other Major Courses

### Required Subject Area

- Anatomy and Physiology Option

(Select a course from the following.)

BIO 166 Anatomy and Physiology II	3	3	0	4
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BIO 169 Anatomy and Physiology II	3	3	0	4
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Other Required Courses

### Required Subject Area

- Computer Elective

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
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CIS 111 Basic PC Literacy	1	2	0	2
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## Total Credit Hours: 71

## Emergency Medical Science - Bridging Program

A 45 34 0 B

### Associate in Applied Science

Day

POS Approved: Summer 2003

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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BIO 165 Anatomy and Physiology I	3	3	0	4
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### Required Subject Areas

- Communication Elective

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
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COM 231 Public Speaking	3	0	0	3
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ENG 115 Oral Communication	3	0	0	3
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- Humanities/Fine Arts Elective

PHI 240 Intro to Ethics	3	0	0	3
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- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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## Major Courses

### Core

EMS 140 Rescue Scene Management	1	3	0	2
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EMS 235 EMS Management	2	0	0	2
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

**Other Major Courses**

BIO 166	Anatomy and Physiology II	3	3	0	4
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**Other Required Courses**

CIS 111	Basic PC Literacy	1	2	0	2
EMS 280	EMS Bridging	2	2	0	3

**Total Credit Hours: 29**

**Prerequisites for admission** to the EMS bridging program include the following.:

1. EMT-P certification
2. Advanced Cardiac Life Support certification
3. Basic Trauma Life Support
4. Pediatric Advanced Life Support certification
5. Documentation of 4,000 hours patient care contact (1.5 years working a 24/48 hour schedule).

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Film and Video Production

A 30 14 0

## Associate in Applied Science

Day

POS Approved: Fall 2001

## Curriculum Description

The Film and Video Production Technology curriculum prepares students for entry-level employment in production support and selected technical areas of film, video, and associated media production. Instruction provides training for entry-level crew and/or production and post-production assistants in many moving image media forms.

The first year content includes exposure to the entire production process. Students are taught by industry professionals who provide extensive hands-on instruction. In the second year, students receive professional training by performing in various crew positions on actual production projects.

Graduates may find employment as entry-level crew and/or production assistants in feature and short films, commercials, and industrial, educational, and documentary productions. Other opportunities include entry-level employment in pre-production and post-production areas for film and video.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

### Required Subject Areas

- Social/Behavioral Science Elective

Course Title	Hours per Week			
	C	Lb	Cn	Cr

(Select a course from the following.)

ANT 210 General Anthropology	3	0	0	3
ANT 220 Cultural Anthropology	3	0	0	3
ECO 151 Survey of Economics	3	0	0	3
ECO 252 Prin of Macroeconomics	3	0	0	3
POL 120 American Government	3	0	0	3
POL 130 State & Local Government	3	0	0	3
PSY 150 General Psychology	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3
SOC 215 Group Processes	3	0	0	3
SOC 225 Social Diversity	3	0	0	3
• Humanities/Fine Arts Elective	3	0	0	3

(See your advisor for course list.)

## Major Courses

### Core

### Other Major Courses

#### Required Subject Area

- Computer Option

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2

## Other Required Courses

ACA 111 College Student Success	1	0	0	1
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## Total Credit Hours: 21

*This instructional service agreement is offered to students at Forsyth Technical Community College through an agreement with Piedmont Community College. The courses above are offered at Forsyth Tech. Please see your advisor for courses offered only at Piedmont Community College.*

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Fire Protection Technology

A 55 24 0

## Associate in Applied Science

Evening

POS Approved: Fall 2005

## Curriculum Description

The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions regarding fire protection for both public and private sectors. It also provides a sound foundation for continuous higher learning in fire protection, administration, and management.

Course work includes classroom and laboratory exercises to introduce the student to various aspects of fire protection. Students will learn technical and administrative skills such as hydraulics, hazardous materials, arson investigation, fire protection safety, fire suppression management, law, and codes.

Graduates should qualify for employment or advancement in governmental agencies, industrial firms, insurance rating organizations, educational organizations, and municipal fire departments. Employed persons should have opportunities for skilled and supervisory-level positions within their current organizations.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### **Required Subject Areas**

- English Elective

(Select a course from the following.)

ENG 112 Argument-Based Research	3	0	0	3
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ENG 113 Literature-Based Research	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

ENG 114 Prof Research & Reporting	3	0	0	3
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- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
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MAT 140 Survey of Mathematics	3	0	0	3
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MAT 161 College Algebra	3	0	0	3
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- Humanities/Fine Arts Elective

(See your advisor for course list.)

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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SOC 210 Introduction to Sociology	3	0	0	3
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SOC 215 Group Processes	3	0	0	3
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## Major Courses

### Core

FIP 120 Intro to Fire Protection	3	0	0	3
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FIP 124 Fire Prevention & Public	3	0	0	3
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FIP 128 Detection & Investigation	3	0	0	3
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FIP 132 Building Construction	3	0	0	3
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FIP 220 Fire Fighting Strategies	3	0	0	3
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### Other Major Courses

FIP 136 Inspection and Codes	3	0	0	3
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FIP 144 Sprinklers and Auto Alarms	2	2	0	3
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FIP 152 Fire Protection Law	3	0	0	3
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FIP 164 OSHA Standards	3	0	0	3
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FIP 224 Instructional Methodology	4	0	0	4
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FIP 236 Emergency Management	3	0	0	3
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### **Required Subject Areas**

- Computers

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
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CIS 111 Basic PC Literacy	1	2	0	2
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- Management

(Select a course from the following.)

EMS 235 EMS Management	2	0	0	2
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(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr
FIP 276 Managing fire Services	3	0	0	3
● Fire Protection Elective				
(Select 17 hours from the following courses.)				
FIP 148 Fixed & Port Exting Sys	2	2	0	3
FIP 160 Fire Protection/Elec	2	0	0	2
FIP 160A Fire Protection/Elec Lab	0	2	0	1
FIP 176 HazMat: Operations	4	0	0	4
FIP 230 Chem of Hazardous				
Mat I	5	0	0	5
FIP 232 Hydraulics & Water Dist	2	2	0	3
EMS 110 EMT Basic	5	6	0	7
FIP 140 Industrial Fire Protect	3	0	0	3
FIP 180 Wildland Fire Behavior	3	0	0	3
FIP 188 Intro to Wildland Fires	3	2	0	4
FIP 221 Adv Fire Fighting Strat	3	0	0	3
FIP 228 Local Govt Finance	3	0	0	3
FIP 231 Chem of Hazardous				
Mat II	4	2	0	5
FIP 240 Fire Service Supervision	3	0	0	3
FIP 244 Fire Protection Project	3	0	0	3
FIP 256 Munic Public Relations	3	0	0	3
FIP 264 Flame Prop & Mat Rating	1	4	0	3

## Total Credit Hours 69

*Forsyth Technical Community College was formerly offering this program through an agreement with Guilford Technical Community College. Forsyth Tech's program of study is pending state board approval.*

Course Title	Hours per Week Cr
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# General Occupational Technology

A 55 28 0

## Associate in Applied Science

Day and Evening

Standard Approved: Fall 2005

## Curriculum Description

The General Occupational Technology curriculum provides individuals with an opportunity to upgrade skills and to earn an associate degree, diploma, and/or certificate by taking courses suited for individual occupational interests and/or needs.

The curriculum content will be customized for students according to occupational interests and needs. A program of study for each student will be selected from any non-developmental level courses (100-189 or 200-289) offered by the College.

Graduates will become more effective workers, better qualified for advancements within their field of employment, and become qualified for a wide range of entry-level employment opportunities.

## A.A.S. Requirements

Minimum General Education Hours	15*
Minimum Major Hours	49**
Other Required Hours	0-7***

## Total Semesters Hours: 64-76

### DEFINITIONS

#### \*General Education

Humanities/Fine Arts	3
Social/Behavioral Sciences	3
Natural Sciences/Mathematics	3

Course Title	Hours per Week Cr
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Communications	6
(3 hours must be ENG 111)	
<b>Total</b>	<b>15</b>

*Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.*

### \*\*Major Hours

#### Total Minimum Major Hours Required 49

Hours are to be selected from approved programs of study in the areas of Core, Core-Subject Areas, Other Major Courses, Other Major Hours-Subject Areas, and/or Other Required Hours.

*A.A.S., diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work experience, including cooperative education, practicums, and internships, may be included in a degree or diploma program up to a maximum of 8 semester hours and in a certificate program up to a maximum of 2 semester hours.*

### Core

The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program.

### Concentration (if applicable)

A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The

majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

### Other Major Hours

Prefixes for major courses for curriculums approved to be offered by the college.

*Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degree programs up to a maximum of 8 semester hours credit.*

### \*\*\*Other Required Hours

*A college may require other subjects or courses to complete graduation requirements. These requirements may include electives, orientation, study skills courses, or other graduation requirements.*

## A.A.S. STATE STANDARD REQUIREMENTS

**49 SHC**

### A. Core

**Required Courses:** None

**Required Subject Areas:** None

### B. Concentration (If applicable)

**Required Courses:** None

### C. Other Major Hours

To be selected from the following prefixes:  
Prefixes for major courses for curriculums approved to be offered by the college.

# General Occupational Technology

D 55 28 0

## Diploma

Day and Evening

Standard Approved: Fall 2005

## Curriculum Description

The General Occupational Technology curriculum provides individuals with an opportunity to upgrade skills and to earn an associate degree, diploma, and/or certificate by taking courses suited for individual occupational interests and/or needs.

The curriculum content will be customized for students according to occupational interests and needs. A program of study for each student will be selected from any non-developmental level courses (100-189 or 200-289) offered by the College.

Graduates will become more effective workers, better qualified for advancements within their field of employment, and become qualified for a wide range of entry-level employment opportunities.

## Diploma Requirements

Minimum General Education Hours	6*
Minimum Major Hours	30**

Total Semesters Hours: 36-48

## DEFINITIONS

### \*General Education

Semester hours required	6
(3 hours must be in communications)	6

*Diploma programs must contain a minimum of 6 semester hours of general*

*education; 3 semester hours must be in communications.*

### \*\*Major Hours

#### Minimum Major

Hours Required 30

Hours are to be selected from approved programs of study in the areas of Core, Core-Subject Areas, Other Major Courses, Other Major Hours-Subject Areas, and/or Other Required Hours.

*Diploma programs must include courses which offer specific job knowledge and skills. Work experience, including cooperative education, practicums, and internships, may be included in a degree or diploma program up to a maximum of 8 semester hours.*

### Core

The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program.

### Concentration (if applicable)

A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

### Other Major Hours

Prefixes for major courses for curriculums approved to be offered by the college. *Other major hours must be selected from prefixes listed on the curriculum standard. Work experience, including cooperative education, practicums, and internships, may be included in diploma programs up to a maximum of 8 semester hours credit.*

**\*\*\*Other Required Hours**

*A college may require other subjects or courses to complete graduation requirements. These requirements may include electives, orientation, study skills courses, or other graduation requirements.*

**DIPLOMA STATE STANDARD****REQUIREMENTS****30 SHC****A. Core**

***Required Courses:*** None

***Required Subject Areas:*** None

**B. Concentration (If applicable)**

***Required Courses:*** None

**C. Other Major Hours**

To be selected from the following prefixes:

Prefixes for major courses for curriculums

approved to be offered by the college.

Course Title	Hours per Week
	C Lb Cn Cr

# Global Logistics Technology

## Curriculum Description

The Global Logistics Technology curriculum prepares individuals for a multitude of career opportunities in distribution, transportation, and manufacturing organizations. Classroom instruction, field of study experiences, and practical laboratory applications of logistics management and global technology capabilities are included in the program of study.

Course work includes computer applications, accounting, business law, economics, management, industrial sciences, and international studies. Students will solve different levels of logistics-related problems through case study evaluations and supply chain projects utilizing logistical hardware and intelligent software tools.

Graduates should qualify for positions in a wide range of government agencies, manufacturing, and service organizations. Employment opportunities include entry-level purchasing, material management, warehousing, inventory, transportation coordinators, and logistics analysts. Upon completion, graduates may be eligible for certification credentials through APICS and AST&L.

## Global Logistics Technology

A 25 17 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3 0 0 3
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Course Title	Hours per Week
	C Lb Cn Cr

### Required Subject Areas

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication	3 0 0 3
COM 231 Public Speaking	3 0 0 3
ENG 114 Prof Research & Reporting	3 0 0 3
ENG 115 Oral Communication	3 0 0 3
<ul style="list-style-type: none"> <li>Humanities/Fine Arts Elective</li> </ul> (See your advisor for course list.)	3 0 0 3
<ul style="list-style-type: none"> <li>Natural Science/Math Elective</li> </ul> (Select a course from the following.)	
MAT 115 Mathematical Models	2 2 0 3
MAT 140 Survey of Mathematics	3 0 0 3
MAT 161 College Algebra	3 0 0 3
<ul style="list-style-type: none"> <li>Social/Behavioral Science Elective</li> </ul> (Select a course from the following.)	
PSY 118 Interpersonal Psychology	3 0 0 3
PSY 150 General Psychology	3 0 0 3

## Major Courses

### Core

BUS 115 Business Law I	3 0 0 3
BUS 137 Principles of Management	3 0 0 3
CIS 152 Database Concepts & Apps	2 2 0 3
LOG 110 Introduction to Logistics	3 0 0 3
LOG 125 Transportation Logistics	3 0 0 3
LOG 215 Supply Chain Management	3 0 0 3
LOG 235 Traffic Management	3 0 0 3
LOG 240 Purchasing Logistics	3 0 0 3
LOG 250 Advanced Global Logistics	3 2 0 4

### Required Subject Areas

- Computer Applications

(Select a course from the following.)

CIS 110 Introduction to Computers	2 2 0 3
CIS 111 Basic PC Literacy	1 2 0 2

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr
CIS 115 Intro to Prog & Logic	2	2	0	3
• Business and Management				
(Select a course from the following.)				
INT 110 International Business	3	0	0	3
ISC 131 Quality Management	3	0	0	3
ISC 135 Principles of Industrial Mgmt	3	0	0	3

### Other Major Courses

ACC 120 Prin of Financial Acct	3	2	0	4
CIS 120 Spreadsheet I	2	2	0	3

### Required Subject Area

- Business Elective

(Select 9 hours from the following courses.)

ACC 121 Prin of Managerial Acct	3	2	0	4
BUS 110 Introduction to Business	3	0	0	3
BUS 151 People Skills	3	0	0	3
BUS 231 Computerized Inventory	2	2	0	3
BUS 225 Business Finance	2	2	0	3
BUS 230 Small Business Management	3	0	0	3
CIS 165 Desktop Publishing I	2	2	0	3
CIS 172 Intro to the Internet	2	3	0	3
COE 111 Work Experience I	0	0	10	1
MKT 224 International Marketing	3	0	0	3

**Total Credit Hours 64**

## Global Logistics Technology

D 25 17 0

### Diploma

Day and Evening

POS Approved: Fall 2005

### General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

### Major Courses

#### Core

CIS 110 Introduction to Computers	2	2	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr
LOG 110 Introduction to Logistics	3	0	0	3
LOG 120 Global Logistics	3	0	0	3
LOG 125 Transportation Logistics	3	0	0	3
LOG 215 Supply Chain Management	3	0	0	3
LOG 235 Traffic Management	3	0	0	3
LOG 240 Purchasing Logistics	3	0	0	3

### Other Major Courses

ACC 120 Prin of Financial Acct	3	2	0	4
ACC 121 Prin of Managerial Acct	3	2	0	4
MKT 120 Principles of Marketing	3	0	0	3

**Total Credit Hours 38**

## Global Logistics Technology

C 25 17 0

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

LOG 110 Introduction to Logistics	3	0	0	3
LOG 120 Global Logistics	3	0	0	3
LOG 125 Transportation Logistics	3	0	0	3
LOG 215 Supply Chain Management	3	0	0	3
LOG 235 Traffic Management	3	0	0	3
LOG 240 Purchasing Logistics	3	0	0	3

**Total Credit Hours 18**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Graphic Arts and Imaging Technology

## Curriculum Description

The Graphic Arts and Imaging Technology curriculum is designed to provide students with knowledge and skills necessary for employment in the printing, publishing, packaging, and related industries.

Students will receive hands-on training in computer publishing, imaging technology, offset lithography, screen printing, and emerging printing technologies. Training may also include flexography, graphic design, and multimedia.

Graduates should qualify for career opportunities within the printing and publishing industries.

## Graphic Arts and Imaging Technology

A 30 18 0

### Associate in Applied Science

Day

POS Approved: Fall 2005

### General Education Courses

ENG 111 Expository Writing 3 0 0 3

ENG 114 Prof Research & Reporting 3 0 0 3

MAT 115 Mathematical Models 2 2 0 3

#### Required Subject Areas

• Humanities/Fine Arts Elective 3 0 0 3

(Select 3 hours. See your advisor for course list.)

• Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Major Courses

### Core

GRA 121 Graphic Arts I 2 4 0 4

GRA 151 Computer Graphics I 1 3 0 2

GRA 152 Computer Graphics II 1 3 0 2

GRA 221 Graphic Arts II 2 4 0 4

GRA 255 Image Manipulation I 1 3 0 2

GRA 256 Image Manipulation II 1 3 0 2

GRD 141 Graphic Design I 2 4 0 4

### Other Major Courses

GRA 110 Graphic Arts Orientation 2 0 0 2

GRA 112 Graphics Problem Solving 2 0 0 2

#### Required Subject Areas

• Business Elective

(Select a course from the following.)

BUS 110 Introduction to Business 3 0 0 3

BUS 230 Small Business Management 3 0 0 3

• Computer Elective

(Select a course from the following.)

CIS 110 Introduction to Computers 2 2 0 3

CIS 111 Basic PC Literacy 1 2 0 2

• Other Major Hours Option 1

(Select 16 hours from the following courses.)

GRA 153 Computer Graphics III 1 3 0 2

GRA 161 Computer Graphics Apps I 0 3 0 1

GRA 162 Computer Graphics Apps II 0 3 0 1

GRA 163 Computer Graphics Apps III 0 3 0 1

GRA 164 Computer Graphics Apps IV 0 3 0 1

PRN 131 Flexography I 2 4 0 4

PRN 155 Screen Printing I 1 3 0 2

PRN 221 Offset Press Operations 1 4 0 3

PRN 240 Print Estimating/Planning 3 0 0 3

• Other Major Hours Option 2

(Select 8 hours from the following courses.)

GRA 222 Graphic Arts III 2 4 0 4

GRA 252 Imaging Techniques 1 4 0 3

Course Title	Hours per Week Cr			
GRA 257 Image Manipulation III	1	3	0	2
GRD 175 3-D Animation Design	1	4	0	3
GRD 180 Interactive Design	1	4	0	3
GRD 271 Multimedia Design I	1	3	0	2
GRD 275 Animation I	1	3	0	2

**Total Credit Hours 68**

## Graphic Arts and Imaging Technology

D 30 18 0

### Diploma

Day

POS Approved: Fall 2005

## General Education Courses

ENG 101 Applied

Communications I 3 0 0 3

MAT 101 Applied Mathematics I 2 2 0 3

## Major Courses

### Core

GRA 121 Graphic Arts I 2 4 0 4

GRA 151 Computer Graphics I 1 3 0 2

GRA 152 Computer Graphics II 1 3 0 2

GRA 221 Graphic Arts II 2 4 0 4

GRA 255 Image Manipulation I 1 3 0 2

GRA 256 Image Manipulation II 1 3 0 2

GRD 141 Graphic Design I 2 4 0 4

### Other Major Courses

GRA 110 Graphic Arts Orientation 2 0 0 2

GRA 112 Graphics Problem Solving 2 0 0 2

CIS 111 Basic PC Literacy 1 2 0 2

GRA 222 Graphic Arts III 2 4 0 4

GRA 161 Computer Graphics

Apps I 0 3 0 1

GRA 162 Computer Graphics

Apps II 0 3 0 1

**Total Credit Hours 38**

Course Title	Hours per Week
	C Lb Cn Cr

# Health Information Technology

A 45 36 0

## Associate in Applied Science

Day

POS Approved: Fall 2001

## Curriculum Description

The Health Information Technology curriculum provides individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage, and report health information.

Students will supervise departmental functions; classify, code, and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing, and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security.

Graduates of this program may be eligible to write the national certification examination to become a Registered Health Information Technician (RHIT). Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, hospice, and mental health facilities.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
MAT 140 Survey of Mathematics	3	0	0	3
PSY 150 General Psychology	3	0	0	3

### Required Subject Area

• Humanities/Fine Arts Elective	3	0	0	3
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Course Title	Hours per Week
	C Lb Cn Cr

(Select a 3 hour course. See your advisor for electives list.)

## Major Courses

### Core

BIO 168 Anatomy and Physiology I	3	3	0	4
BIO 169 Anatomy and Physiology II	3	3	0	4
BUS 137 Principles of Management	3	0	0	3
MED 121 Medical Terminology I	3	0	0	3
MED 122 Medical Terminology II	3	0	0	3

### Other Major Courses

CIS 110 Introduction to Computers	2	2	0	3
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## Total Credit Hours: 38

*This instructional service agreement is offered to students at Forsyth Technical Community College through an agreement with Davidson County Community College. The courses below are offered at Forsyth Tech. Please see your advisor for courses offered only at Davidson County Community College.*

**Additional Admission Requirements** to those listed on page 14 in the **College Catalog**

1. Completion of high school or college credits in biology, chemistry and algebra. Credit for chemistry is granted only with a course grade of C or better.
2. No grade below C in HIT, MED, ENG or BIO prefix courses prior to program entry.
3. Completion of program orientation requirements.
4. Overall grad point average of 2.0 on those courses completed at Forsyth Tech which are listed as program course requirements.
5. Completion of the **Forsyth Tech Medical Form**.

**Program Information**

This program has limited enrollment. Those students first to meet the admissions requirements before the admission deadline will be admitted as space allows. The Admissions Office can provide additional information on the admission process.

A grade of F or any withdrawal in any required science course, HIT prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the college.

The program is accredited by the Commission on the Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the American Health Information Management Association's Council on Accreditation.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Heavy Equipment and Transport Technology

## Curriculum Description

The Heavy Equipment and Transport Technology curriculum is designed to prepare individuals with the knowledge and skills needed to service, troubleshoot, and repair medium and heavy duty vehicles.

The course work includes the purpose, construction features, and principles of operation of medium and heavy duty vehicles.

Graduates of the curriculum should qualify for entry-level employment opportunities in a dealership, fleet shop, or independent garage as a technician. Graduates that have met the work experience requirement should also be prepared to take the ASE certification exam.

## Heavy Equipment and Transport Technology (Diploma)

D 60 24 0

### Diploma

Day

POS Approved: Fall 2002

### General Education Courses

ENG 101 Applied

Communications I 3 0 0 3

MAT 101 Applied Mathematics I 2 2 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Major Courses

### Core

HET 110 Diesel Engines 3 9 0 6

HET 112 Diesel Electrical Systems 3 6 0 5

HET 116 Air Condit./Diesel Equip 1 2 0 2

### Other Major Courses

ELN 112 Diesel Electronics System 2 6 0 4

HET 114 Power Trains 3 6 0 5

HET 119 Mechanical Transmissions 2 2 0 3

HET 125 Preventive Maintenance 1 3 0 2

HET 230 Air Brakes 1 2 0 2

HET 233 Suspension and Steering 2 4 0 4

HYD 112 Hydraulics/Med/  
Heavy Duty 1 2 0 2

**Total Credit Hours: 41**

## Heavy Equipment and Transport Technology

C 60 24 0

### Certificate

Day and Evening

POS Approved: Fall 2002

## Major Courses

### Core

HET 110 Diesel Engines 3 9 0 6

HET 112 Diesel Electrical Systems 3 6 0 5

HET 116 Air Cond/Diesel Equip 1 2 0 2

### Other Major Courses

HET 125 Preventive Maintenance 1 3 0 2

HET 230 Air Brakes 1 2 0 2

**Total Credit Hours: 17**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# High Performance Computing

A 25 23 0

## Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

## Curriculum Description

The High Performance Computing curriculum is designed to prepare students for employment with organizations that require experience with HPC technology. Students will learn to assemble, program and operate high performance cluster computers.

The curriculum includes introductory and advanced levels of HPC architecture including distributed-memory systems, parallel programming concepts, high-speed networking and LINUX/UNIX operating systems.

Program graduates can expect to work in an HPC environment that supports educational, industrial, or government agencies that require HPC skills.

## General Education Courses

ENG 111 Expository Writing 3 0 0 3

### Required Subject Areas

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication 3 0 0 3

COM 231 Public Speaking 3 0 0 3

ENG 114 Prof Research & Reporting 3 0 0 3

ENG 115 Oral Communication 3 0 0 3

- Humanities/Fine Arts Elective 3 0 0 3

(See your advisor for course list.)

- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models 2 2 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

MAT 140 Survey of Mathematics 3 0 0 3

MAT 161 College Algebra 3 0 0 3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

CSC 125 Intro to Parallel Prog 2 2 0 3

CSC 225 Adv Parallel Programming 2 3 0 3

HPC 110 Intro to HPC 2 2 0 3

HPC 130 Intro to HPC Communicatio 2 2 0 3

HPC 140 Intro to HPC Architecture 2 2 0 3

HPC 230 Adv HPC Communication 2 2 0 3

HPC 240 Adv HPC Architecture 2 2 0 3

HPC 285 Sys Analysis and Design 3 0 0 3

NET 145 Introduction to Linux 2 2 0 3

NET 155 Linux System Administrat 2 2 0 3

## Other Major Courses

CSC 148 JAVA Programming 2 3 0 3

CSC 248 Adv Internet Progr 2 3 0 3

CSC 258 JAVA Enterprise Programs 2 3 0 3

HPC 180 Intro to Cluster Comput 2 2 0 3

HPC 245 Grid Technologies 2 2 0 3

HPC 280 Adv Cluster Computing 2 2 0 3

NET 165 Linux Networking/ Security 2 2 0 3

### Required Subject Area

- Other Major Hours Elective

(Select 6 hours from the following.)

COE 111 Co-op Work Experience I 0 0 10 1

COE 112 Co-op Work Experience I 0 0 20 2

HPC 162 HPC Security 2 2 0 3

HPC 172 HPC Applications 2 2 0 3

**Total Credit Hours: 72**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Horticulture Technology

## Curriculum Description

The Horticulture Technology curriculum is designed to prepare individuals for various careers in horticulture. Classroom instruction and practical laboratory applications of horticultural principles and practices are included in the program of study.

Course work includes plant science, plant materials, propagation, soils, fertilizers, and pest management. Also included are courses in plant production, landscaping, and the management and operation of horticulture businesses.

Graduates should qualify for employment opportunities in nurseries, garden centers, greenhouses, landscape operations, gardens, and governmental agencies. Graduates should also be prepared to take the North Carolina Pesticide Applicator's Examination and the North Carolina Certified Plant Professional Examination.

## Horticulture Technology

A 15 24 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2002

### General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
PSY 118 Interpersonal Psychology	3	0	0	3

### Required Subject Area

• Humanities/Fine Arts Elective	3	0	0	3
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(See your advisor for course list.)

### Major Courses

#### Core

HOR 160 Plant Materials I	2	2	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

HOR 162 Applied Plant Science	2	2	0	3
HOR 164 Hort Pest Management	2	2	0	3
HOR 166 Soils & Fertilizers	2	2	0	3
HOR 168 Plant Propagation	2	2	0	3

### Other Major Courses

HOR 110 Intro to Landscaping	1	2	0	2
HOR 118 Equipment Op & Maint	1	3	0	2
HOR 150 Intro to Horticulture	2	0	0	2
HOR 152 Horticultural Practices	0	3	0	1
HOR 170 Hort Computer Apps	1	3	0	2
HOR 251 Insects & Diseases	2	2	0	3
HOR 260 Plant Materials II	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2

### Required Subject Areas

#### • Specialty Option 1

(Select a course from the following.)

HOR 112 Landscape Design I	2	3	0	3
HOR 114 Landscape Construction	2	2	0	3
HOR 154 Intro to Hort Therapy	2	4	0	4
HOR 215 Landscape Irrigation	2	2	0	3
HOR 225 Nursery Production	2	3	0	3

#### • Specialty Option 2

(Select a course from the following.)

BUS 151 People Skills	3	0	0	3
BUS 230 Small Business Management	3	0	0	3
HOR 134 Greenhouse Operations	2	2	0	3
HOR 245 Hor Specialty Crops	2	2	0	3
HOR 255 Interiorscapes	1	2	0	2
HOR 257 Arboriculture Practices	1	3	0	2
HOR 265 Advanced Plant Materials	1	2	0	2

#### • Specialty Option 3

(Select a course from the following.)

COE 111 Co-op Work Experience I	0	0	10	1
COE 112 Co-op Work Experience I	0	0	20	2
HOR 116 Landscape Management I	2	2	0	3
HOR 124 Nursery Operations	2	3	0	3
HOR 213 Landscape Design II	2	2	0	3
HOR 235 Greenhouse Production	2	2	0	3
HOR 271 Garden Center Mgmt	2	0	0	2
HOR 273 Hor Mgmt & Marketing	3	0	0	3

**Total Credit Hours: 66**

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Horticulture Technology

C 15 24 0 HT

### Certificate

Day and Evening

POS Approved: Fall 2002

### Major Courses

#### Core

HOR 160 Plant Materials I	2	2	0	3
HOR 162 Applied Plant Science	2	2	0	3
HOR 164 Hort Pest Management	2	2	0	3
HOR 166 Soils & Fertilizers	2	2	0	3
HOR 168 Plant Propagation	2	2	0	3

#### Other Major Courses

HOR 150 Intro to Horticulture	2	0	0	2
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**Total Credit Hours: 17**

## Horticulture Technology - Greenhouse Operations and Management

C 15 24 0 GO

### Certificate

Day and Evening

POS Approved: Fall 2002

### Major Courses

#### Core

HOR 160 Plant Materials I	2	2	0	3
HOR 168 Plant Propagation	2	2	0	3

#### Other Major Courses

HOR 150 Intro to Horticulture	2	0	0	2
HOR 152 Horticultural Practices	0	3	0	1
HOR 134 Greenhouse Operations	2	2	0	3
HOR 255 Interiorscapes	1	2	0	2
HOR 235 Greenhouse Production	2	2	0	3

**Total Credit Hours: 17**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Horticulture Technology - Landscape Maintenance

C 15 24 0 LM

### Certificate

Day and Evening

POS Approved: Fall 2002

### Major Courses

#### Core

HOR 160 Plant Materials I	2	2	0	3
HOR 164 Hort Pest Management	2	2	0	3
HOR 166 Soils & Fertilizers	2	2	0	3

#### Other Major Courses

HOR 118 Equipment Op & Maint	1	3	0	2
HOR 150 Intro to Horticulture	2	0	0	2
HOR 152 Horticultural Practices	0	3	0	1
HOR 116 Landscape Management I	2	2	0	3

**Total Credit Hours: 17**

## Horticulture Technology - Nursery Operations & Management

C 15 24 0 NO

### Certificate

Day and Evening

POS Approved: Fall 2002

### Major Courses

#### Core

HOR 160 Plant Materials I	2	2	0	3
HOR 164 Hort Pest Management	2	2	0	3
HOR 168 Plant Propagation	2	2	0	3
HOR 150 Intro to Horticulture	2	0	0	2
HOR 152 Horticultural Practices	0	3	0	1
HOR 225 Nursery Production	2	3	0	3
HOR 124 Nursery Operations	2	3	0	3

**Total Credit Hours: 18**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Human Services Technology

## Curriculum Description

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies which provide social, community, and educational services. Along with core courses, students take courses which prepare them for specialization in specific human service areas.

Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, child care, family services, social services, rehabilitation, correction, and educational agencies. Graduates choosing to continue their education may select from a variety of transfer programs at senior public and private institutions.

## Human Services Technology

A 45 38 0

### Associate in Applied Science

Day and Evening

POS Approved: 2004\*03

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
COM 120 Interpersonal Communication	3	0	0	3

### Required Subject Areas

- English Elective

(Select a course from the following.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

ENG 112 Argument-Based Research	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3
• Humanities/Fine Arts Elective	3	0	0	3
(Select a course. See your advisor for course list.)				
• Natural Science/Math Elective				
(Select a course from the following.)				
MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3
• Social/Behavioral Science Elective				
SOC 213 Sociology of the Family	3	0	0	3

## Major Courses

### Core

HSE 110 Intro to Human Services	2	2	0	3
HSE 112 Group Process I	1	2	0	2
HSE 123 Interviewing Techniques	2	2	0	3
PSY 150 General Psychology	3	0	0	3
HSE 125 Counseling	2	2	0	3
HSE 210 Human Services Issues	2	0	0	2
HSE 225 Crisis Intervention	3	0	0	3

### Required Subject Areas

- Psychology Option

(Select a course from the following.)

PSY 110 Life Span Development	3	0	0	3
PSY 241 Developmental Psych	3	0	0	3

- Sociology Option

(Select a course from the following.)

SOC 210 Introduction to Sociology	3	0	0	3
SOC 220 Social Problems	3	0	0	3

### Other Major Courses

COE 111 Co-op Work Experience I	0	0	10	1
COE 121 Co-op Work Experience II	0	0	10	1
HSE 127 Conflict Resolution	2	2	0	3
HSE 240 Issues in Client Services	3	0	0	3
HSE 245 Stress Management	2	2	0	3
PSY 281 Abnormal Psychology	3	0	0	3

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### **Required Subject Areas**

#### ● HSE Elective

(Select 9 hours from the following courses.)

HSE 150 Preventive Intervention	1	2	0	2
HSE 220 Case Management	2	2	0	3
HSE 242 Family Systems	3	0	0	3
HSE 251 Activities Therapy	2	2	0	3
HSE 255 Health Prob & Prevent	2	2	0	3
SOC 225 Social Diversity	3	0	0	3

#### ● Computer Elective

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2

**Total Credit Hours: 68**

## **Human Services Technology - Domestic Violence Intervention**

C 45 38 0 DV

### **Certificate**

Day and Evening

POS Approved: 2004\*03

### **Major Courses**

#### **Core**

HSE 110 Intro to Human Services	2	2	0	3
HSE 123 Interviewing Techniques	2	2	0	3
HSE 225 Crisis Intervention	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3

#### **Other Major Courses**

HSE 150 Preventive Intervention	1	2	0	2
HSE 242 Family Systems	3	0	0	3

**Total Credit Hours: 17**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

**Note:** All prerequisites must be met before courses can be taken. See a human services technology advisor.)

## **Human Services Technology - Social Services**

C 45 38 0 SS

### **Certificate**

Day and Evening

POS Approved: Fall 2004

### **Major Courses**

#### **Core**

HSE 110 Intro to Human Services	2	2	0	3
HSE 123 Interviewing Techniques	2	2	0	3
HSE 210 Human Services Issues	2	0	0	2
HSE 225 Crisis Intervention	3	0	0	3

#### **Other Major Courses**

HSE 220 Case Management	2	2	0	3
HSE 240 Issues in Client Services	3	0	0	3

**Total Credit Hours: 17**

**Note:** All prerequisites must be met before courses can be taken. See a human services technology advisor.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Industrial Systems Technology

## Curriculum Description

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems.

Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

## Industrial Systems Technology

A 50 24 0

**Associate in Applied Science**

Day

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Required Subject Areas

• Humanities/Fine Arts Elective 3 0 0 3  
(See your advisor for course list.)

• Social/Behavioral Science Elective  
(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

MNT 110 Intro to Maint Procedures	1	3	0	2
WLD 112 Basic Welding Processes	1	3	0	2

## Required Subject Areas

• Electricity  
(Select a course from the following.)

ELC 111 Intro to Electricity	2	2	0	3
ELC 112 DC/AC Electricity	3	6	0	5

• Hydraulics  
(Select a course from the following.)

HYD 110 Hydraulics/Pneumatics I	2	3	0	3
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Blueprints and Diagrams

(Select a course from the following.)

BPR 111 Blueprint Reading	1	2	0	2
BPR 115 Elc/Fluid Power Diagrams	1	2	0	2
BPR 130 Blueprint Reading/Const	1	2	0	2
BPR 135 Schematics & Diagrams	2	0	0	2
ELC 125 Diagrams and Schematics	1	2	0	2

• Metalworking and Fabrication  
(Select a course from the following.)

MAC 111 Machining Technology I	2	12	0	6
MEC 111 Machines Processes I	1	4	0	3
MEC 131 Metalworking Processes	2	3	0	3

• Safety  
(Select a course from the following.)

ISC 112 Industrial Safety	2	0	0	2
ISC 115 Construction Safety	2	0	0	2

## Other Major Courses

AHR 111 HVACR Electricity	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2
ELC 115 Industrial Wiring	2	6	0	4
ELC 117 Motors and Controls	2	6	0	4
ELC 128 Intro to PLC	2	3	0	3

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr
HYD 115 Industrial Hydraulics	2	2	0	3
ISC 121 Envir Health & Safety	3	0	0	3
MNT 111 Maintenance Practices	2	2	0	3
MNT 130 Control Systems	2	4	0	4
MNT 160 Industrial Fabrication	1	3	0	2
MEC 130 Mechanisms	2	2	0	3

**Total Credit Hours: 66**

## Industrial Systems Technology

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C 50 24 0

### Certificate

Day

POS Approved: Fall 2005

## Major Courses

### Core

HYD 110 Hydraulics/Pneumatics I	2	3	0	3
MEC 111 Machines Processes I	1	4	0	3

### Other Major Courses

MNT 111 Maintenance Practices	2	2	0	3
MEC 130 Mechanisms	2	2	0	3

**Total Credit Hours: 12**

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

# Information Systems

## Curriculum Description

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

## Information Systems

A 25 26 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2004

## General Education Courses

ENG 111 Expository Writing 3 0 0 3

### Required Subject Areas

● Humanities/Fine Arts Elective 3 0 0 3

(Select a 3 hour course. See your advisor for course list.)

● Natural Science/Math Elective

(Select a course from the following.)

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

MAT 115 Mathematical Models 2 2 0 3

MAT 140 Survey of Mathematics 3 0 0 3

MAT 161 College Algebra 3 0 0 3

● Oral Communication Elective

(Select a course from the following.)

COM 120 Interpersonal Communication 3 0 0 3

COM 231 Public Speaking 3 0 0 3

ENG 114 Prof Research & Reporting 3 0 0 3

ENG 115 Oral Communication 3 0 0 3

● Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

CIS 115 Intro to Prog & Logic 2 2 0 3

CIS 130 Survey of Operating Sys 2 3 0 3

CIS 152 Database Concepts & Apps 2 2 0 3

### Required Subject Areas

● Basic Computer Skills

(Select a course from the following.)

CIS 110 Introduction to Computers 2 2 0 3

CIS 111 Basic PC Literacy 1 2 0 2

● Networking Technology

(Select a course from the following.)

CIS 282 Network Technology 3 0 0 3

NET 110 Data Comm/Networking 2 2 0 3

● Business

(Select a course from the following.)

ACC 111 Financial Accounting 3 0 0 3

ACC 115 College Accounting 3 2 0 4

ACC 120 Prin of Financial Acct 3 2 0 4

ACC 170 Technical Accounting 2 2 0 3

BUS 110 Introduction to Business 3 0 0 3

BUS 151 People Skills 3 0 0 3

BUS 152 Human Relations 3 0 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Other Major Courses

CIS 120 Spreadsheet I	2	2	0	3
CIS 162 MM Presentation Software	2	2	0	3
CIS 215 Hardware Install/Maint	2	3	0	3
CSC 139 Visual BASIC Programming	2	3	0	3
ITN 160 Principles of Web Design	2	2	0	3
OST 131 Keyboarding	1	2	0	2
OST 136 Word Processing	1	2	0	2

### Required Subject Areas

#### ● Information Systems Option

(Select 6 hours from the following courses.)

CIS 124 DTP Graphics Software	2	2	0	3
CIS 125 CORE Integrated Software	2	2	0	3
CIS 164 DTP Layout & Design	2	2	0	3
CIS 165 Desktop Publishing I	2	2	0	3
CIS 166 Desktop Publishing II	2	2	0	3
CIS 168 Desktop Presentations	1	2	0	2
CIS 170 Tech Support Functions I	2	2	0	3
CIS 172 Intro to the Internet	2	3	0	3
CIS 228 Project Manager	1	2	0	2
CIS 276 Helpdesk Analysis & Design	3	0	0	3

#### ● Programming Option

(Select 2 hours from the following courses.)

ACC 150 Acct Software Appl	1	2	0	2
CIS 154 Database Utilization	1	2	0	2
CIS 155 Database Theory/Analysis	2	2	0	3
CIS 157 Database Programming I	2	2	0	3
CIS 286 Systems Analysis & Design	3	0	0	3
CIS 288 Systems Project	1	4	0	3
CSC 134 C++ Programming	2	3	0	3
CSC 135 COBOL Programming	2	3	0	3
CSC 138 RPG Programming	2	3	0	3
CSC 141 Visual C++ Programming	2	3	0	3
CSC 239 Advanced Visual BASIC	2	3	0	3

#### ● Networking & Internet Option

(Select 3 hours from the following courses.)

CIS 126 Graphics Software Intro	2	2	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

CIS 260 Business Graphics Apps	2	2	0	3
ITN 120 Intro Internet Multimedia	2	2	0	3
ITN 130 Web Site Management	2	2	0	3
ITN 140 Web Development Tools	2	2	0	3
ITN 150 Internet Protocols	2	2	0	3
ITN 170 Intro to Internet Databases	2	2	0	3
NET 125 Routing and Switching I	1	4	0	3
NET 126 Routing and Switching II	1	4	0	3
● Operating Systems Option (Select 3 hours from the following courses.)				
CIS 116 Intro PC App Development	2	3	0	3
CIS 144 Operating System - DOS 2	2	0	0	3
CIS 147 Operating System - Windows	2	2	0	3
CIS 148 Operating Sys - WindowsNT	2	2	0	3
CIS 244 Operating System - AS/400	2	3	0	3
CIS 245 Oper Sys - Multi-user	2	3	0	3
CIS 246 Operating System - UNIX	2	3	0	3

## Total Credit Hours: 65

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. High school algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

## Information Systems

D 25 26 0

### Diploma

Day and Evening

POS Approved: Fall 2004

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

## Major Courses

### Core

CIS 111 Basic PC Literacy	1	2	0	2
CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 130 Survey of Operating Sys	2	3	0	3
CIS 152 Database Concepts &\nApps	2	2	0	3
NET 110 Data Comm/Networking	2	2	0	3

### Other Major Courses

CIS 120 Spreadsheet I	2	2	0	3
CIS 162 MM Presentation\nSoftware	2	2	0	3
OST 136 Word Processing	1	2	0	2

### Required Subject Area

- Information Systems Option

(Select 6 hours from the following courses.)

CIS 124 DTP Graphics Software	2	2	0	3
CIS 154 Database Utilization	1	2	0	2
CIS 164 DTP Layout & Design	2	2	0	3
CIS 170 Tech Support\nFunctions I	2	2	0	3
CIS 228 Project Manager	1	2	0	2

## Total Credit Hours: 36

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. High school algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

## Information Systems - Desktop Publishing

D 25 26 0 D

### Diploma

Day and Evening

POS Approved: Fall 2004

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

## Major Courses

### Core

CIS 111 Basic PC Literacy	1	2	0	2
CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 130 Survey of Operating Sys	2	3	0	3
NET 110 Data Comm/Networking	2	2	0	3

### Other Major Courses

CIS 162 MM Presentation\nSoftware	2	2	0	3
CIS 164 DTP Layout & Design	2	2	0	3
CIS 165 Desktop Publishing I	2	2	0	3
CIS 166 Desktop Publishing II	2	2	0	3
CIS 168 Desktop Presentations	1	2	0	2
CIS 172 Intro to the Internet	2	3	0	3
CIS 260 Business Graphics Apps	2	2	0	3

### Required Subject Area

- CIS/ITN Elective

(Select 6 hours from the following courses.)

CIS 124 DTP Graphics Software	2	2	0	3
CIS 126 Graphics Software Intro	2	2	0	3
ITN 120 Intro Internet Multimedia	2	2	0	3
ITN 130 Web Site Management	2	2	0	3
ITN 140 Web Development Tools	2	2	0	3
ITN 150 Internet Protocols	2	2	0	3
ITN 170 Intro to Internet\nDatabase	2	2	0	3

## Total Credit Hours: 43

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. High school algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Information Systems

C 25 26 0

### Certificate

Day and Evening

POS Approved: Fall 2004

### Major Courses

#### Core

CIS 111 Basic PC Literacy	1	2	0	2
CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 130 Survey of Operating Sys	2	3	0	3
CIS 152 Database Concepts & Apps	2	2	0	3

#### Other Major Courses

CIS 120 Spreadsheet I	2	2	0	3
OST 136 Word Processing	1	2	0	2

**Total Credit Hours: 16**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Keyboarding skills recommended.

## Information Systems - Helpdesk

C 25 26 0 H

### Certificate

Day and Evening

POS Approved: Fall 2004

### Major Courses

#### Core

CIS 111 Basic PC Literacy	1	2	0	2
CIS 115 Intro to Prog & Logic	2	2	0	3
NET 110 Data Comm/Networking	2	2	0	3

#### Other Major Courses

CIS 215 Hardware Install/Maint	2	3	0	3
CIS 276 Helpdesk Analysis & Design	3	0	0	3

**Total Credit Hours: 17**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Keyboarding skills recommended.
2. CIS 170: first eight-week course
3. CIS 276: second eight-week course

These courses are taught in eight-week units. Admission to the second-eight week course is contingent upon completion of the first-eight week course.

## Information Systems - Oracle

C 25 26 0 OR

### Certificate

Day and Evening

POS Approved: Fall 2004

### Major Courses

#### Core

CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 152 Database Concepts & Apps	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2

#### Other Major Courses

CIS 154 Database Utilization	1	2	0	2
CIS 155 Database Theory/Analysis	2	2	0	3
CIS 157 Database Programming I	2	2	0	3

**Total Credit Hours: 16**

## Information Systems - PC Literacy

C 25 26 0 L

### Certificate

Day and Evening

POS Approved: Fall 2004

### Curriculum Description

The Information Systems curriculum is designed

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

## Major Courses

### Core

CIS 111	Basic PC Literacy	1	2	0	2
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### Other Major Courses

CIS 120	Spreadsheet I	2	2	0	3
CIS 162	MM Presentation Software	2	2	0	3
OST 136	Word Processing	1	2	0	2
CIS 172	Intro to the Internet	2	3	0	3

## Total Credit Hours: 13

# Information Systems/Network Administration and Support

## Curriculum Description

Network Administration and Support is a concentration under the curriculum title of Information Systems. This curriculum prepares students to install and support networks and develops strong analytical skills and extensive computer knowledge.

Course work includes extensive hands-on experience with networks. Classes cover media types, topologies, and protocols with installation and support of hardware and software, troubleshooting network and computer problems, and administrative responsibilities.

Graduates should qualify for positions such as: LAN/PC administrator, microcomputer support specialist, network control operator, communications technician/analyst, network/computer consultant, and information systems specialist. Graduates should be prepared to sit for certification exams, which can result in industry-recognized credentials.

## Information Systems/Network Administration and Support

A 25 26 D

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2004

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### Required Subject Areas

- English Elective

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
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COM 231 Public Speaking	3	0	0	3
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ENG 114 Prof Research & Reporting	3	0	0	3
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ENG 115 Oral Communication	3	0	0	3
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- Humanities/Fine Arts Elective

(Select a 3 hour course. See your advisor for course list.)

- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
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MAT 140 Survey of Mathematics	3	0	0	3
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MAT 161 College Algebra	3	0	0	3
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- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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## Major Courses

### Core

CIS 115 Intro to Prog & Logic	2	2	0	3
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CIS 130 Survey of Operating Sys	2	3	0	3
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CIS 152 Database Concepts & Apps	2	2	0	3
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### Required Subject Areas

- Basic Computer Skills

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
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CIS 111 Basic PC Literacy	1	2	0	2
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- Networking

(Select a course from the following.)

NET 110 Data Comm/Networking	2	2	0	3
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CIS 282 Network Technology	3	0	0	3
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- Business

(Select a course from the following.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr
ACC 111 Financial Accounting	3	0	0	3
ACC 115 College Accounting	3	2	0	4
ACC 120 Prin of Financial Acct	3	2	0	4
ACC 170 Technical Accounting	2	2	0	3
BUS 110 Introduction to Business	3	0	0	3
BUS 151 People Skills	3	0	0	3
BUS 152 Human Relations	3	0	0	3
<b>Concentration Core Courses</b>				
CIS 174 Network System Manager I	2	2	0	3
CIS 175 Network Management I	2	2	0	3
CIS 274 Network System Manager II	2	2	0	3
CIS 275 Network Management II	2	2	0	3
CIS 287 Network Support	2	2	0	3
<b>Other Major Courses</b>				
CIS 215 Hardware Install/Maint	2	3	0	3
NET 112 Security Fund. & Policies	3	0	0	3
<b>Required Subject Areas</b>				
● Intermediate Admin & Support (Select 6 hours from the following courses.)				
CIS 121 User Support & Softw Eval	1	4	0	3
CIS 147 Operating System- Windows	2	2	0	3
CIS 155 Database Theory/Analysis	2	2	0	3
CIS 170 Tech Support Functions I	2	2	0	3
CSC 185 Perl Programming	2	3	0	3
NET 145 Introduction to Linux	2	2	0	3
NET 175 Wireless Technology	2	2	0	3
NET 222 Security Administration I	2	2	0	3
● Advanced Admin & Support (Select 6 hours from the following courses.)				
CIS 157 Database Programming I	2	2	0	3
CIS 216 Software Install/Maint	1	2	0	2
CIS 245 Oper Sys - Multi-user	2	3	0	3
CIS 276 Helpdesk Analysis & Design	3	0	0	3
CIS 277 Network Design & Imp	2	2	0	3
NET 155 Linux System Administrat	2	2	0	3
NET 165 Linux Networking/ Security	2	2	0	3
NET 231 Intrusion Detection	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr
NET 232 Security Admin. II	2	2	0	3
NET 240 Network Design	3	0	0	3

**Total Credit Hours: 65**

## Information Systems/Network Administration and Support - Microsoft Certified Systems Engineer

D 25 26 DM

### Diploma

Day and Evening

POS Approved: Fall 2004

## General Education Courses

MAT 115 Mathematical Models	2	2	0	3
ENG 111 Expository Writing	3	0	0	3

## Major Courses

### Core

CIS 111 Basic PC Literacy	1	2	0	2
CIS 130 Survey of Operating Sys	2	3	0	3
CIS 152 Database Concepts & Apps	2	2	0	3
NET 110 Data Comm/Networking	2	2	0	3
BUS 110 Introduction to Business	3	0	0	3

### Core Concentration Courses

CIS 174 Network System Manager I	2	2	0	3
CIS 175 Network Management I	2	2	0	3
CIS 274 Network System Manager II	2	2	0	3
CIS 275 Network Management II	2	2	0	3
CIS 287 Network Support	2	2	0	3

### Other Major Courses

CIS 215 Hardware Install/Maint	2	3	0	3
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### Required Subject Area

- Microsoft Elective

(Continued on next page.)

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

(Select 6 hours from the following courses.)

CIS 155 Database Theory/Analysis	2	2	0	3
CIS 157 Database Programming I	2	2	0	3
CIS 277 Network Design & Imp	2	2	0	3

**Total Credit Hours: 44**

## Information Systems/Network Administration and Support - Secure Administration

D 25 26 DS

### Diploma

Day and Evening

POS Approved: Fall 2004

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

## Major Courses

### Core

BUS 110 Introduction to Business	3	0	0	3
CIS 111 Basic PC Literacy	1	2	0	2
CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 130 Survey of Operating Sys	2	3	0	3
NET 110 Data Comm/Networking	2	2	0	3

### Concentration Core Courses

CIS 174 Network System Manager I	2	2	0	3
CIS 175 Network Management I	2	2	0	3
CIS 274 Network System Manager II	2	2	0	3
CIS 275 Network Management II	2	2	0	3
CIS 287 Network Support	2	2	0	3

### Other Major Courses

NET 112 Security Fund. & Policies	3	0	0	3
NET 222 Security Administration I	2	2	0	3
NET 232 Security Admin. II	2	2	0	3

**Total Credit Hours: 44**

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

## Information Systems/Network Administration and Support - Linux Administration

C 25 26 DL

### Certificate

Day and Evening

POS Approved: Fall 2004

## Major Courses

### Core

CIS 111 Basic PC Literacy	1	2	0	2
NET 110 Data Comm/Networking	2	2	0	3

### Other Major Courses

CIS 215 Hardware Install/Maint	2	3	0	3
NET 145 Introduction to Linux	2	2	0	3
NET 155 Linux System Administrat	2	2	0	3
NET 165 Linux Networking/Security	2	2	0	3

**Total Credit Hours: 17**

## Information Systems/Network Administration and Support - Microsoft Certified Systems Administrator

C 25 26 DM

### Certificate

Day and Evening

POS Approved: Fall 2004

## Major Courses

### Core

NET 110 Data Comm/Networking	2	2	0	3
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### Core Concentration Courses

CIS 174 Network System Manager I	2	2	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

CIS 274	Network System Manager II	2	2	0	3
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### Other Major Courses

CIS 147	Operating System-Windows	2	2	0	3
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CIS 245	Oper Sys - Multi-user	2	3	0	3
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### Required Subject Area

### Other Major Hours Elective

(Select a course from the following)

CIS 157	Database Programming I	2	2	0	3
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CIS 175	Network Management I	2	2	0	3
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**Total Credit Hours: 18**

## Information

### Systems/Network

### Administration and Support

### - Microsoft Desktop

### Support

C 25 26 DD

### Certificate

Day and Evening

POS Approved: Fall 2004

## Major Courses

### Core

CIS 111	Basic PC Literacy	1	2	0	2
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CIS 130	Survey of Operating Sys	2	3	0	3
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NET 110	Data Comm/Networking	2	2	0	3
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### Other Major Courses

CIS 121	User Support & Softw Eval	1	4	0	3
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CIS 216	Software Install/Maint	1	2	0	2
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**Total Credit Hours: 13**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Information Systems Security

## Curriculum Description

Information Systems Security covers a broad expanse of technology concepts. This curriculum provides individuals with the skills required to implement effective and comprehensive information security controls.

Course work includes networking technologies, operating systems administration, information policy, intrusion detection, security administration, attack methodology, and industry best practices to protect data communications.

Graduates should be prepared for employment as security administrators. Additionally, they will acquire the skills that allow them to pursue security certifications.

# Information Systems Security

A 25 27 0

## Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### Required Subject Areas

• Humanities/Fine Arts Elective	3	0	0	3
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(Select a 3 hour course. See your advisor for electives list.)

• Natural Science/Math Elective  
(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

- Oral Communications Elective  
(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
COM 231 Public Speaking	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3
ENG 115 Oral Communication	3	0	0	3

- Social/Behavioral Science Elective  
(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

NET 112 Security Fund. & Policies	3	0	0	3
NET 122 Secure Communications	2	2	0	3
NET 222 Security Administration I	2	2	0	3
NET 231 Intrusion Detection	2	2	0	3
NET 232 Security Admin. II	2	2	0	3
NET 233 Defense In-Depth	2	2	0	3
NET 275 Attack Methodology	2	2	0	3

### Required Subject Areas

- Networking Basics  
(Select a course from the following.)

CIS 173 Network Theory	2	2	0	3
CIS 282 Network Technology	3	0	0	3
NET 110 Data Comm/Networking	2	2	0	3

- Networking Management  
(Select a course from the following.)

CIS 174 Network System Manager I	2	2	0	3
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CIS 175 Network Management I	2	2	0	3
CIS 245 Oper Sys - Multi-user	2	3	0	3
NET 120 Network Install/Admin I	2	2	0	3

- Operating Systems  
(Select a course from the following.)

CIS 246 Operating System - UNIX	2	3	0	3
NET 145 Introduction to Linux	2	2	0	3

- Operating System Admin  
(Select a course from the following.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

CIS 279	UNIX System Admin	3	3	0	4
NET 155	Linux System Administrat.	2	2	0	3

### Other Major Courses

CIS 115	Intro to Prog & Logic	2	2	0	3
NET 125	Routing and Switching I	1	4	0	3
NET 126	Routing and Switching II	1	4	0	3
NET 240	Network Design	3	0	0	3
NET 285	Security Project	1	3	0	2

### Required Subject Area

- Other Major Hours Elective

(Select 6 hours from the following.)

CIS 110	Introduction to Computers	2	2	0	3
CIS 152	Database Concepts & Apps	2	2	0	3
CIS 157	Database Programming I	2	2	0	3
CIS 215	Hardware Install/Maint	2	3	0	3
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 221	Investigative Principles	3	2	0	4
COE 113	Co-op Work Experience I	0	0	30	3
CSC 141	Visual C++ Programming	2	3	0	3
CSC 160	Intro to Internet Prog	2	2	0	3
CSC 185	Perl Programming	2	3	0	3
NET 165	Linux Networking/Security	2	2	0	3
NET 175	Wireless Technology	2	2	0	3
NET 225	Adv. Router & Switching I	1	4	0	3
NET 226	Adv. Router & Switching II	1	4	0	3

**Total Credit Hours: 68**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Information Systems Security

C 25 27 0

### Certificate

Day and Evening

POS Approved: Fall 2005

## Major Courses

### Core

NET 110	Data Comm/Networking	2	2	0	3
NET 112	Security Fund. & Policies	3	0	0	3
NET 122	Secure Communications	2	2	0	3
NET 222	Security Administration I	2	2	0	3
NET 231	Intrusion Detection	2	2	0	3

**Total Credit Hours: 15**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Internet Technologies

### Curriculum Description

The Internet Technologies curriculum is designed to prepare graduates for employment with organizations that use computers to disseminate information via the Internet internally, externally, and/or globally. The curriculum will prepare students to create and implement these services.

Course work includes computer and Internet terminology and operations, logic, operating systems, database and data communications/networking, and related topics. Studies will provide opportunities for students to implement, support, and customize industry-standard Internet technologies.

Graduates should qualify for career opportunities as webmasters, Internet and intranet administrators, Internet applications specialists, Internet programmers and Internet technicians. Government institutions, industries, and other organizations employ individuals who possess the skills taught in this curriculum.

## Internet Technologies

A 25 29 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

### General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

#### Required Subject Area

- Humanities/Fine Arts Elective 3 0 0 3  
(Select a 3 hour course. See your advisor for electives list.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

### Major Courses

#### Core

CIS 172 Intro to the Internet	2	3	0	3
CSC 160 Intro to Internet Prog	2	2	0	3
ITN 140 Web Development Tools	2	2	0	3
ITN 150 Internet Protocols	2	2	0	3
NET 110 Data Comm/Networking	2	2	0	3

#### Other Major Courses

CIS 111 Basic PC Literacy	1	2	0	2
CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 130 Survey of Operating Sys	2	3	0	3
CIS 152 Database Concepts & Apps	2	2	0	3
ITN 130 Web Site Management	2	2	0	3
ITN 170 Intro to Internet Databas	2	2	0	3
ITN 230 Intranets	2	2	0	3
ITN 240 Internet Security	2	2	0	3
ITN 260 Intro. to E-Commerce	2	2	0	3
OST 131 Keyboarding	1	2	0	2

#### Required Subject Area

- Internet Tech Elective

(Select 6 hours from the following.)

CSC 143 Object-Oriented Prog	2	3	0	3
CSC 248 Adv Internet Progr	2	3	0	3
ITN 110 Intro. to Web Graphics	2	2	0	3
ITN 160 Principles of Web Design	2	2	0	3
ITN 280 Unix Internet Prog	2	2	0	3
NET 120 Network Install/Admin I	2	2	0	3

### Total Credit Hours: 64

Additional admissions requirements to those

Course Title	Hours per Week			
	C	Lb	Cn	Cr

- beginning on page 7 in the *College Catalog*:
1. High school algebra required.
  2. High school geometry recommended.
  3. High school keyboarding recommended.

## Internet Technologies

C 25 29 0

### Certificate

Day and Evening  
 POS Approved: Fall 2005

## Major Courses

### Core

CIS 172	Intro to the Internet	2	3	0	3
CSC 160	Intro to Internet Prog	2	2	0	3
ITN 140	Web Development Tools	2	2	0	3
NET 110	Data Comm/Networking	2	2	0	3

### Other Major Courses

CIS 111	Basic PC Literacy	1	2	0	2
ITN 260	Intro. to E-Commerce	2	2	0	3

## Total Credit Hours: 17

- Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:
1. Keyboarding skills recommended.

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

# Interventional Cardiac and Vascular Technology

A 45 14 0 (PROPOSED)

Associate in Applied Science

Day

**PENDING STATE BOARD APPROVAL for Effective Term of Fall 2005**

## Curriculum Description

The Interventional Cardiac and Vascular Technology curriculum provides the didactic and clinical experience necessary to prepare students to qualify as entry-level Interventional Cardiac and Vascular Interventional Specialists.

Didactic course work includes radiographic physics, radiation protection, patient care, ECG, pharmacology, anatomy and pathology. Clinical rotations to area health care facilities allow for experience with medications and advanced radiographic imaging equipment used to visualize human vasculature and organs. Students will assist physicians in diagnostic and interventional procedures, demonstrate sterile technique, manipulate intricate and specialized equipment, and adhere to radiation protection protocols.

Graduates will meet eligibility requirements to apply for and take the Registered Cardiovascular Interventional Technology (RCIS) exams given by Cardiovascular Credentialing International (CCI). Employment opportunities include medical facilities where vascular, cardiovascular, and/or interventional imaging procedures are performed.

## General Education Courses

BIO 163 Basic Anatomy & Physiology	4	2	0	5
ENG 111 Expository Writing	3	0	0	3

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

PSY 150 General Psychology 3 0 0 3

### **Required Subject Areas**

- English

(Select a course from the following.)

ENG 112 Argument-Based Research 3 0 0 3

ENG 114 Prof Research & Reporting 3 0 0 3

- Humanities/Fine Arts Elective 3 0 0 3

(See your advisor for list of electives.)

## Major Courses

### Core

ICV 110 Patient Care & Invasive Fund 2 2 0 3

ICV 111 ICV Electrocardiography 0 3 0 1

ICV 112 Ionizing Radiation Effects 2 0 0 2

ICV 113 Interventional Neuro Radiography 1 2 0 2

ICV 120 ICV Clinical Ed I 0 0 6 2

ICV 125 ICV Clinical Ed II 0 0 12 4

ICV 130 ICV Clinical Ed III 0 0 12 4

ICV 216 Radiographic Pharmacology 2 0 0 2

ICV 217 Interventional Equip & Supplies 2 2 0 3

ICV 218 Cardiac Physiology & Procedures 3 0 0 3

ICV 219 Vascular Physiology & Procedures 3 0 0 3

ICV 220 ICV Clinical Ed IV 0 0 27 9

ICV 230 ICV Clinical Ed V 0 0 27 9

ICV 241 ICV Pathology Review 2 0 0 2

### **Required Subject Areas**

- Exam Prep

(Select a course from the following.)

ICV 261 ICV Cardiac Exam Prep 1 0 0 1

ICV 262 ICV Vascular Exam Prep 1 0 0 1

- Physics

(Select a set from the following.)

### **Set 1**

ICV 114 ICV Physics I 1 2 0 2

Course Title	Hours per Week			
	C	Lb	Cn	Cr
ICV 214 ICV Physics II <i>Set 2</i>	1	3	0	2
RAD 131 Radiographic Physics I	1	3	0	2
RAD 231 Radiographic Physics II	1	3	0	2
<b>Other Major Courses</b>				
BIO 271 Pathophysiology	3	0	0	3
CVS 110 C/V Sonography	1	3	0	2

**Total Credit Hours: 76**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Machining Technology

D 50 30 0

## Diploma

Day

POS Approved: 2002\*03

## Curriculum Description

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment, and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations, and make decisions to ensure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies, and in a wide range of specialty machining job shops.

## General Education Courses

ENG 115 Oral Communication	3	0	0	3
MAT 120 Geometry and Trigonometry	2	2	0	3

## Major Courses

### Core

MAC 111 Machining Technology I	2	12	0	6
MAC 112 Machining Technology II	2	12	0	6
MAC 113 Machining Technology III	2	12	0	6
BPR 111 Blueprint Reading	1	2	0	2
BPR 121 Blueprint Reading: Mech	1	2	0	2
MAC 122 CNC Turning	1	3	0	2

Course Title	Hours per Week			
	C	Lb	Cn	Cr

MAC 124 CNC Milling	1	3	0	2
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### Other Major Courses

ISC 113 Industrial Specifications	1	0	0	1
MAC 151 Machining Calculations	1	2	0	2
MEC 172 Intro to Metallurgy	2	2	0	3

## Total Credit Hours: 38

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. One unit of algebra recommended
2. One unit of geometry recommended

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

# Machining Technology/Tool, Die, and Mold Making

A 50 30 A

## Associate in Applied Science

Day and Evening

POS Approved: Fall 2001

## Curriculum Description

Tool, Die, and Mold Making is a concentration under the curriculum title of Machining Technology. This curriculum is designed to develop skills in the use of hand tools, computerized equipment, and precision instruments for machine tooling used for the mass production of parts.

Students will learn to interpret blueprints, set up manual and CNC machines, and perform basic and advanced machining operations. Emphasis will be placed on the production of tooling used for punching, stamping, and molding of parts.

Graduates should qualify for employment opportunities in manufacturing industries and tool, die, and mold making industries.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
MAT 120 Geometry and Trigonometry	2	2	0	3

### Required Subject Areas

- Humanities/Fine Arts Elective 3 0 0 3

(See your advisor for course list.)

- Social/Behavioral Science Elective

(Select a course from the following.)

ANT 210 General Anthropology	3	0	0	3
ANT 220 Cultural Anthropology	3	0	0	3
ECO 151 Survey of Economics	3	0	0	3

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

ECO 251 Prin of Microeconomics	3	0	0	3
ECO 252 Prin of Macroeconomics	3	0	0	3
POL 120 American Government	3	0	0	3
POL 130 State & Local Government	3	0	0	3
PSY 150 General Psychology	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3
SOC 215 Group Processes	3	0	0	3

## Major Courses

### Core

MAC 111 Machining Technology I	2	12	0	6
MAC 112 Machining Technology II	2	12	0	6
MAC 113 Machining Technology III	2	12	0	6
BPR 111 Blueprint Reading	1	2	0	2
BPR 121 Blueprint Reading: Mech	1	2	0	2
MAC 122 CNC Turning	1	3	0	2
MAC 124 CNC Milling	1	3	0	2

### Concentration Core Courses

MAC 153 Compound Angles	1	2	0	2
MAC 243 Die Making I	2	6	0	4
MAC 244 Die Making II	1	9	0	4
MAC 245 Mold Construction I	2	6	0	4
MAC 246 Mold Construction II	1	9	0	4

### Other Major Courses

CIS 111 Basic PC Literacy	1	2	0	2
DFT 121 Intro to GD & T	1	2	0	2
ISC 113 Industrial Specifications	1	0	0	1
MAC 151 Machining Calculations	1	2	0	2
MEC 172 Intro to Metallurgy	2	2	0	3

## Total Credit Hours: 69

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. One unit of algebra recommended.
2. One unit of geometry recommended.

# Mechanical Engineering Technology/Drafting and Design

## Curriculum Description

The Mechanical Engineering Technology curriculum prepares graduates for employment as mechanical technicians. Typical assignments would include assisting in the design, development, testing and repair of mechanical equipment. Emphasis is placed on the integration of theory and mechanical principles.

Course work includes applied mechanics, manufacturing methods and processes, computer usage, computer-aided drafting, mathematics, physics, and oral and written communications. The courses will stress critical thinking, planning, and problem solving.

Graduates of the curriculum will find employment opportunities in the diversified branches of the mechanical field. Mechanical engineering technicians are employed in many types of manufacturing, fabrication, research and development, and service industries.

## Mechanical Engineering Technology/Drafting and Design

A 40 32 A

Associate in Applied Science

Day

POS Approved: Fall 2005

## Course Title

Hours per Week  
C Lb Cn Cr

## General Education Courses

ENG 111	Expository Writing	3	0	0	3
ENG 114	Prof Research & Reporting	3	0	0	3
MAT 121	Algebra/Trigonometry	2	2	0	3

## Required Subject Areas

● Humanities/Fine Arts Elective	3	0	0	3
(See your advisor for course list.)				
● Social/Behavioral Science Elective				
(Select a course from the following.)				
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

DFT 111	Technical Drafting I	1	3	0	2
DFT 151	CAD I	2	3	0	3
MAT 122	Algebra/Trigonometry II	2	2	0	3
PHY 131	Physics-Mechanics	3	2	0	4
MEC 251	Statics	2	2	0	3
MEC 252	Strength of Materials	2	2	0	3

### Concentration Core Courses

DDF 211	Design Drafting I	2	6	0	4
DDF 212	Design Drafting II	1	6	0	4
DDF 213	Design Drafting III	1	6	0	4
DDF 214	Tool Design	2	4	0	4
DFT 112	Technical Drafting II	1	3	0	2
DFT 152	CAD II	2	3	0	3

### Other Major Courses

CIS 111	Basic PC Literacy	1	2	0	2
DFT 111A	Technical Drafting I Lab	0	3	0	1
DFT 112A	Technical Drafting II Lab	0	3	0	1
DFT 121	Intro to GD & T	1	2	0	2
DFT 153	CAD III	2	3	0	3
MEC 111	Machines Processes I	1	4	0	3
MEC 180	Engineering Materials	2	3	0	3

**Total Credit Hours: 69**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

1. One unit of algebra
2. One unit of geometry
3. High school physics recommended

# Mechanical Engineering Technology/Drafting and Design - CAD

C 40 32 A  
**Certificate**  
Day  
POS Approved: Fall 2005

## Major Courses Core

DFT 151 CAD I 2 3 0 3

### Concentration Core Course

DDF 211 Design Drafting I 2 6 0 4

DFT 152 CAD II 2 3 0 3

### Other Major Courses

DFT 153 CAD III 2 3 0 3

**Total Credit Hours: 13**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Medical Assisting

A 45 40 0

## Associate in Applied Science

Day

POS Approved: Fall 2004

## Curriculum Description

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP-accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

## General Education Courses

ENG 111 Expository Writing 3 0 0 3

### Required Subject Areas

- English Elective

(Select a course from the following.)

COM 231 Public Speaking 3 0 0 3

ENG 115 Oral Communication 3 0 0 3

- Humanities/Fine Arts Elective 3 0 0 3

(Select a course. See your advisor for course list.)

- Natural Science/Math Elective

(Select a course from the following.)

MAT 110 Mathematical

Measurement 2 2 0 3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

MAT 115 Mathematical Models 2 2 0 3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

MED 110 Orientation to Med Assist 1 0 0 1

MED 118 Medical Law and Ethics 2 0 0 2

MED 121 Medical Terminology I 3 0 0 3

MED 122 Medical Terminology II 3 0 0 3

MED 130 Admin Office Proc I 1 2 0 2

MED 131 Admin Office Proc II 1 2 0 2

MED 134 Medical Transcription 2 2 0 3

MED 140 Exam Room  
Procedures I 3 4 0 5

MED 150 Laboratory Procedures I 3 4 0 5

MED 260 MED Clinical Externship 0 0 1 5

### Required Subject Area

- Anatomy & Physiology Elective

(Select a course from the following.)

BIO 163 Basic Anat & Physiology 4 2 0 5

MED 116 Introduction to A & P 3 2 0 4

### Other Major Courses

ACC 111 Financial Accounting 3 0 0 3

CIS 111 Basic PC Literacy 1 2 0 2

MED 240 Exam Room  
Procedures II 3 4 0 5

MED 262 Clinical Perspectives 1 0 0 1

MED 272 Drug Therapy 3 0 0 3

MED 276 Patient Education 1 2 0 2

OST 131 Keyboarding 1 2 0 2

OST 134 Text Entry and  
Formatting 2 2 0 3

## Total Credit Hours: 71

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Medical Laboratory Technology

A 45 42 0  
**Associate in Applied Science**  
 Day  
 POS Approved: Fall 2001

## Curriculum Description

The Medical Laboratory Technology curriculum prepares individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology, and immunohematology that may be used in the maintenance of health and diagnosis/treatment of disease.

Course work emphasizes mathematical and scientific concepts related to specimen collection, laboratory testing and procedures, quality assurance, and reporting/recording and interpreting findings involving tissues, blood, and body fluids.

Graduates may be eligible to take examinations given by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists or the Certifying Agency. Employment opportunities include laboratories in hospitals, medical offices, industry, and research facilities.

## General Education Courses

ENG 111 Expository Writing*	3	0	0	3
ENG 114 Prof Research & Reporting*	3	0	0	3
COM 120 Interpersonal Communication*	3	0	0	3
MAT 140 Survey of Mathematics*	3	0	0	3
PSY 150 General Psychology*	3	0	0	3

### Required Subject Area

• Humanities/Fine Arts Elective*	3	0	0	3
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(See your advisor for course list.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Major Courses

### Core

BIO 163 Basic Anat & Physiology*	4	2	0	5
CHM 130 Gen, Org, & Biochemistry*	3	0	0	3
CHM 130A Gen, Org, & Biochem Lab*	0	2	0	1

## Total Credit Hours Forsyth Tech Is Approved to Offer: 27

*This instructional service agreement is offered to students at Forsyth Technical Community College through an agreement with Davidson County Community College. The courses below are offered at Forsyth Tech. Please see your advisor for courses offered only at Davidson County Community College.*

**Additional admission requirements** to those beginning on page 7 in the **College Catalog**: Completion of high school or college credits in biology, chemistry, and algebra.

1. Credit for chemistry is granted only with a course grade of C or better.
2. No grade below C in Medical Laboratory curriculum courses taken prior to program entry.
3. Completion of program orientation requirements.
4. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in Medical Laboratory Technology.
5. Completion of the **Forsyth Tech Student Medical Form**.

## Program Information

This program has limited enrollment. Those students first to meet the admissions requirements before the admission deadline will be admitted as space allows. The Admissions Office can provide additional information on the admission process.

Re-admission may be possible but requires re-application and approval by the college.

The program is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACIS).

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Medical Office Administration

## Curriculum Description

This curriculum prepares individuals for employment in medical and other health-care related offices.

Course work will include medical terminology; information systems; office management; medical coding, billing and insurance; legal and ethical issues; and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments.

Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other health-care related organizations.

## Medical Office Administration

A 25 31 0

**Associate in Applied Science**

Day

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### Required Subject Areas

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

COM 231 Public Speaking	3	0	0	3
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ENG 115 Oral Communication	3	0	0	3
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- Humanities/Fine Arts Elective

(See your advisor for course list.)

- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
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MAT 140 Survey of Mathematics	3	0	0	3
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MAT 161 College Algebra	3	0	0	3
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- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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## Major Courses

### Core

OST 148 Med Coding Billing & Insu	3	0	0	3
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OST 149 Medical Legal Issues	3	0	0	3
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### Required Subject Areas

- Formatting/Word Processing

OST 134 Text Entry and Formatting	2	2	0	3
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- Office Systems/Management

OST 164 Text Editing Applications	3	0	0	3
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OST 289 Office Systems Management	2	2	0	3
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- Computers/Information Systems

(Select a course from the following.)

CIS 110 Introduction to Computers	2	2	0	3
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CIS 111 Basic PC Literacy	1	2	0	2
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- Medical Terminology

MED 121 Medical Terminology I	3	0	0	3
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MED 122 Medical Terminology II	3	0	0	3
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## Other Major Courses

ACC 120 Prin of Financial Acct	3	2	0	4
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BUS 260 Business Communication	3	0	0	3
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CIS 120 Spreadsheet I	2	2	0	3
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MED 116 Introduction to A & P	3	2	0	4
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MED 130 Admin Office Proc I	1	2	0	2
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OST 122 Office Computations	1	2	0	2
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(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr
OST 131 Keyboarding	1	2	0	2
OST 137 Office Software App	1	2	0	2
OST 181 Intro to Office Systems	2	2	0	3
OST 244 Medical Document Production	1	2	0	2
OST 248 Diagnostic Coding	1	2	0	2
<b>Required Subject Areas</b>				
● MOA Elective 1				
(Select a course from the following.)				
OST 135 Adv Text Entry & Format	3	2	0	4
OST 236 Ad Word/Information Proc	2	2	0	3
● MOA Elective 2				
(Select a minimum of 2 hours but not more than 4 hours from the following.)				
CIS 152 Database Concepts & Apps	2	2	0	3
MKT 223 Customer Service	3	0	0	3
OST 132 Keyboard Skill Building	1	2	0	2
OST 136 Word Processing	1	2	0	2
OST 138 Advanced Software Applications	1	2	0	2
OST 184 Records Management	1	2	0	2
OST 233 Office Publications Design	2	2	0	3
OST 284 Emerging Technologies	2	0	0	2
OST 286 Professional Development	3	0	0	3

**Total Credit Hours 72**

Course Title	Hours per Week			
	C	Lb	Cn	Cr
<b>Medical Office Administration - Outpatient Coding</b>				
<hr/>				
C 25 31 0 0				
<b>Certificate</b>				
Day				
POS Approved: Fall 2005				

## Major Courses

### Core

CIS 111 Basic PC Literacy	1	2	0	2
MED 121 Medical Terminology I	3	0	0	3
MED 122 Medical Terminology II	3	0	0	3
OST 148 Med Coding Billing & Insu	3	0	0	3
OST 149 Medical Legal Issues	3	0	0	3

### Other Major Courses

MED 116 Intro to A & P	3	2	0	4
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**Total Credit Hours: 18**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Medical Sonography

A 45 44 0

## Associate in Applied Science

Day

POS Approved: Fall 2003

## Curriculum Description

The Medical Sonography curriculum provides knowledge and clinical skills in the application of high frequency sound waves to image internal body structures.

Course work includes physics, cross-sectional anatomy, abdominal, introductory vascular, and obstetrical/gynecological sonography. Competencies are attained in identification of normal anatomy and pathological processes, use of equipment, fetal growth and development, integration of related imaging, and patient interaction skills.

Graduates of accredited programs may be eligible to take examinations in ultrasound physics and instrumentation and specialty examinations administered by the American Registry of Diagnostic Medical Sonographers and find employment in clinics, physicians' offices, mobile services, hospitals, and educational institutions.

## General Education Courses

ENG 111	Expository Writing	3	0	0	3
<b><i>Required Subject Areas</i></b>					
● Communications Option					
(Select a course from the following.)					
COM 120	Interpersonal Communication	3	0	0	3
COM 231	Public Speaking	3	0	0	3
ENG 114	Prof Research & Reporting	3	0	0	3
ENG 115	Oral Communication	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

● Humanities/Fine Arts Elective	3	0	0	3
(See your advisor for course list.)				
● Natural Science/Math Elective				
(Select a course from the following.)				
MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3
● Social/Behavioral Science Elective				
(Select a course from the following.)				
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

SON 110 Intro to Sonography	1	3	3	3
SON 111 Sonographic Physics	3	3	0	4
SON 120 SON Clinical Ed I	0	0	15	5
SON 121 SON Clinical Ed II	0	0	15	5
SON 130 Abdominal Sonography I	2	3	0	3
SON 131 Abdominal Sonography II	1	3	0	2
SON 140 Gynecological Sonography	2	0	0	2
SON 220 SON Clinical Ed III	0	0	24	8
SON 221 SON Clinical Ed IV	0	0	24	8
SON 225 Case Studies	0	3	0	1
SON 241 Obstetrical Sonography I	2	0	0	2
SON 242 Obstetrical Sonography II	2	0	0	2
SON 250 Vascular Sonography	1	3	0	2
SON 289 Sonographic Topics	2	0	0	2

### Required Subject Area

● Anatomy and Physiology					
(Select a course from the following.)					
BIO 163	Basic Anat & Physiology	4	2	0	5
BIO 166	Anatomy and Physiology II	3	3	0	4
BIO 169	Anatomy and Physiology II	3	3	0	4

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### Other Major Courses

PHY 110 Conceptual Physics 3 0 0 3

PHY 110A Conceptual Physics Lab 0 2 0 1

● Anatomy and Physiology Option

(Select a course from the following.)

BIO 165 Anatomy and  
Physiology I 3 3 0 4

BIO 168 Anatomy and  
Physiology I 3 3 0 4

## Total Credit Hours: 76

**Additional admissions requirements** to those beginning on page 7 in the **College Catalog**:

1. Biology, algebra, and physics recommended.
2. Current cardiopulmonary resuscitation certification at the health care provider level.
3. Completion of program orientation requirements which may include observational hours prior to acceptance.
4. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in the Medical Sonography program.
5. All students, including those with transfer credits for English and math, will be required to take the CPT exams in reading, sentence skills, arithmetic, and algebra during the current year for which they are applying for entry. Applicants who do not make the minimum required cut-scores for entry into the program will be required to take developmental courses in the areas that they are deficient in. These courses may include MAT 070, MAT 060, ENG 090, and RED 090. Upon successful completion of the required developmental courses with a grade of C or better, the applicant must retake the appropriate CPT exam(s) and score the minimum cut-score that is required for entry into the program.

**Note:** Transfer credits for required general education courses (ENG 111, MAT 115, etc.) will be applied toward points in the selective admission process, but it does not exempt applicants from taking the CPT exams.

### 6. Completion of the **Forsyth Tech Student Medical Form.**

### Program Information

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II, emergency medical technician, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Medical Transcription (Diploma)

D 25 32 0

## Diploma

Day

POS Approved: Fall 2005

## Curriculum Description

The Medical Transcription curriculum prepares individuals to become medical language specialists who interpret and transcribe dictation by physicians and other healthcare professionals in order to document patient care and facilitate delivery of healthcare services.

Students will gain extensive knowledge of medical terminology, pharmacology, human diseases, diagnostic studies, surgical procedures, and laboratory procedures. In addition to word processing skill and knowledge of voice processing equipment, students must master English grammar, spelling, and proofreading.

Graduates should qualify for employment in hospitals, medical clinics, doctors' offices, private transcription businesses, research facilities, insurance companies, and publishing companies. After acquiring work experience, individuals can apply to the American Association for Medical Transcription to become Certified Medical Transcriptionists.

## General Education Courses

ENG 111 Expository Writing 3 0 0 3

### Required Subject Area

● Humanities/Fine Arts Elective 3 0 0 3

(See your advisor for course list.)

## Major Courses

### Core

OST 136 Word Processing 1 2 0 2

Course Title	Hours per Week			
	C	Lb	Cn	Cr

OST 164 Text Editing Applications 3 0 0 3

OST 201 Medical Transcription I 3 2 0 4

OST 202 Medical Transcription II 3 2 0 4

### Required Subject Area

#### ● Medical Terminology

MED 121 Medical Terminology I 3 0 0 3

MED 122 Medical Terminology II 3 0 0 3

### Other Major Courses

COE 111 Co-op Work

Experience I 0 0 10 1

MED 118 Medical Law and Ethics 2 0 0 2

MED 270 Symptomatology 2 2 0 3

MED 272 Drug Therapy 3 0 0 3

OST 132 Keyboarding Skills

Building 1 2 0 2

OST 203 Fundamentals of

Med Docu 3 0 0 3

### Required Subject Areas

#### ● Anatomy and Physiology

(Select 4 hours from the following courses.)

BIO 163 Basic Anat & Physiology 4 2 0 5

BIO 165 Anatomy and Physiology I 3 0 4

MED 116 Introduction to A & P 3 2 0 4

#### ● Computer Option

(Select a course from the following.)

CIS 110 Introduction to

Computers 2 2 0 3

OST 137 Office Software

Applications 1 2 0 2

#### ● Cooperative Education

COE 110 World of Work 1 0 0 1

COE 111 Co-op Work

Experience I 0 0 10 1

## Total Credit Hours: 45

**Additional admissions requirement** to those beginning on page 7 in the **College Catalog**:

1. Keyboarding proficiency highly recommended.

A minimum of 40 words per minute are needed to be successful in this program of study!

(Continued on next page.)

**Program Information**

This program has limited enrollment. Those students first to meet the admission requirements before the admission deadline will be admitted as space allows. The Admissions Office can provide additional information on the admissions process. A grade of C or better is required for all MED and OST courses. Failure to meet this requirement may result in dismissal from the program. Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Nanotechnology

A 20 19 0

## Associate in Applied Science

Day

POS Approved: Spring 2005

## Curriculum Description

The Nanotechnology curriculum prepares students to characterize and fabricate materials for biological, textile, chemical, and electrical applications at the atomic level in entry-level positions in engineering, manufacturing and/or medical research and development.

Course work includes biology, chemistry, physics, mathematics, manufacturing engineering technology, and an extensive array of very detailed nanotechnology-specific courses, using high-tech equipment and complying with high-precision quality control and clean-room protocols.

Graduates should qualify for various positions of industry and government, including research and development, materials testing and processing, optics and sensors, electron microscopy, and emerging nanotechnology industries.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

### Required Subject Areas

- Humanities/Fine Arts Elective 3 0 0 3  
(Select a 3 hour course. See your advisor for electives list.)
- Natural Science/Math Elective  
(Select a course from the following.)  
MAT 121 Algebra/Trigonometry 2 2 0 3  
MAT 161 College Algebra 3 0 0 3
- Social/Behavioral Science Elective  
(Select a course from the following.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

NAN 111 Intro to Nanotechnology	3	0	0	3
NAN 112 Fundamentals of Nanosci	3	0	0	3
NAN 131 Materials, Safety & Equip	2	0	0	2
NAN 132 Controlled Materials	2	0	0	2
NAN 241 Nanofab of Mixtures	3	2	0	4
NAN 242 Nanofab of Thin Films	3	2	0	4
NAN 243 Atomic-Force Microscopy	3	2	0	4
NAN 244 Electron Microscopy	3	2	0	4

### Required Subject Areas

- Biology  
(Select a course from the following.)  
BIO 110 Principles of Biology 3 3 0 4  
BIO 111 General Biology I 3 3 0 4
- Chemistry  
(Select 4 hours from one of the following set(s) of courses.)

#### Set Number 1

CHM 131 Introduction to Chemistry	3	0	0	3
CHM131A Intro to Chemistry Lab	0	3	0	1
CHM 151 General Chemistry I	3	3	0	4

- Mathematics  
(Select a course from the following.)  
MAT 122 Algebra/Trigonometry II 2 2 0 3
- Mechanical/Manufacturing Eng  
(Select 9 hours from the following courses.)  
MEC 145 Mfg Materials I 2 3 0 3  
MEC 172 Intro to Metallurgy 2 2 0 3  
MEC 180 Engineering Materials 2 3 0 3  
MEC 251 Statics 2 2 0 3  
MEC 252 Strength of Materials 2 2 0 3  
MEC 260 Fund of Machine Design 2 3 0 3  
MEC 265 Fluid Mechanics 2 2 0 3  
MEC 267 Thermal Systems 2 2 0 3
- Physics  
(Select a course from the following.)  
PHY 131 Physics-Mechanics 3 2 0 4

Course Title	Hours per Week			
	C	Lb	Cn	Cr
PHY 151 College Physics I	3	2	0	4

### Other Major Courses

COE 111 Co-op Work Experience I 0 0 10 1

## Total Credit Hours: 66

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Students will be required to have high school Algebra I and II, biology, and chemistry or the equivalent developmental courses. Physics is strongly recommended, but not required.
2. Students must attend a required orientation session.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Networking Technology

## Curriculum Description

The Networking Technology curriculum prepares individuals for employment supporting local- and wide-area networks. Students will learn how to use technologies to provide for data, voice, image, and video communications in business, industry, and education.

Course work includes design, installation, configuration, and management of local- and wide-area network hardware and software. Emphasis is placed on developing proficiency in the use of network management software and the use of hardware such as bridges and routers.

Graduates may find employment in entry-level jobs as local area network managers, network operators, network analysts, and network technicians. Graduates may also be qualified to take certification examinations for various network products, depending on their local program.

## Networking Technology

A 25 34 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2004

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### Required Subject Areas

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
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COM 231 Public Speaking	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

ENG 114 Prof Research & Reporting	3	0	0	3
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ENG 115 Oral Communication	3	0	0	3
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- Humanities/Fine Arts Elective 3 0 0 3

(Select a 3 hour course. See your advisor for electives list.)

- Natural Science/Math Elective  
(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
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MAT 140 Survey of Mathematics	3	0	0	3
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MAT 161 College Algebra	3	0	0	3
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- Social/Behavioral Science Elective  
(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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## Major Courses

### Core

NET 110 Data Comm/Networking	2	2	0	3
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NET 120 Network Install/Admin I	2	2	0	3
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NET 220 Network Install/Admin II	2	2	0	3
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NET 230 Wide Area Networking	2	2	0	3
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NET 240 Network Design	3	0	0	3
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NET 250 Advanced Networks I	2	2	0	3
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NET 251 Advanced Networks II	2	2	0	3
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NET 260 Internet Dev. & Support	3	0	0	3
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NET 280 Networking Project	1	4	0	3
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### Required Subject Areas

- Operating Systems

(Select a course from the following.)

CIS 245 Oper Sys - Multi-user	2	3	0	3
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CIS 246 Operating System - UNIX	2	3	0	3
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### Other Major Courses

NET 125 Routing and Switching I	1	4	0	3
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NET 126 Routing and Switching II	1	4	0	3
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NET 225 Adv. Router & Switching I	1	4	0	3
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NET 226 Adv.Router & Switching II	1	4	0	3
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### Required Subject Areas

- Other Major Hours Option 1

Course Title	Hours per Week			
	C	Lb	Cn	Cr
(Select 3 hours from the following courses.)				
CIS 111 Basic PC Literacy	1	2	0	2
CIS 115 Intro to Prog & Logic	2	2	0	3
CIS 170 Tech Support Functions I	2	2	0	3
CIS 215 Hardware Install/Maint	2	3	0	3
NET 112 Security Fund. & Policies	3	0	0	3
NET 270 Scalable Networks Design	1	4	0	3
● Other Major Hours Option 2				
(Select 9 hours from the following courses.)				
CIS 276 Helpdesk Analysis & Design	3	0	0	3
NET 175 Wireless Technology	2	2	0	3
NET 222 Security Administration I	2	2	0	3
NET 231 Intrusion Detection	2	2	0	3
NET 232 Security Admin. II	2	2	0	3
NET 235 Netwking. Troubleshooting	2	2	0	3
NET 271 Multi-Layer Networks	1	4	0	3
NET 272 Remote Access Networks	1	4	0	3
NET 273 Internetworking Support	1	4	0	3

**Total Credit Hours: 69**

## Networking Technology - Advanced Cisco

D 25 34 0 AC

### Diploma

Day and Evening

POS Approved: Fall 2004

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

## Major Courses

### Core

NET 110 Data Comm/Networking	2	2	0	3
NET 120 Network Install/Admin I	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr
NET 220 Network Install/Admin II	2	2	0	3
NET 230 Wide Area Networking	2	2	0	3
NET 240 Network Design	3	0	0	3
● Operating Systems				
(Select a course from the following.)				
CIS 245 Oper Sys - Multi-user	2	3	0	3
CIS 246 Operating System - UNIX	2	3	0	3

## Other Major Courses

NET 125 Routing and Switching I	1	4	0	3
NET 126 Routing and Switching II	1	4	0	3
NET 225 Adv. Router & Switching I	1	4	0	3
NET 226 Adv. Router & Switching II	1	4	0	3
NET 270 Scalable Networks Design	1	4	0	3
NET 271 Multi-Layer Networks	1	4	0	3
NET 272 Remote Access Networks	1	4	0	3
NET 273 Internetworking Support	1	4	0	3

**Total Credit Hours: 48**

## Networking Technology - Networking Security

D 25 34 0 NS

### Diploma

Day and Evening

POS Approved: Fall 2004

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3

## Major Courses

### Core

NET 110 Data Comm/Networking	2	2	0	3
NET 120 Network Install/Admin I	2	2	0	3
NET 220 Network Install/Admin II	2	2	0	3
NET 230 Wide Area Networking	2	2	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

NET 240	Network Design	3	0	0	3
<b>Required Subject Areas</b>					
● Operating Systems					
(Select a course from the following.)					
CIS 245	Oper Sys - Multi-user	2	3	0	3
CIS 246	Operating System - UNIX	2	3	0	3

**Other Major Courses**

NET 125	Routing and Switching I	1	4	0	3
NET 126	Routing and Switching II	1	4	0	3
NET 225	Adv. Router & Switching I	1	4	0	3
NET 226	Adv.Router & Switching II	1	4	0	3
NET 112	Security Fund. & Policies	3	0	0	3
NET 222	Security Administration I	2	2	0	3
NET 231	Intrusion Detection	2	2	0	3

**Total Credit Hours: 45**

**Networking Technology - Cisco Networking Associate**

C 25 34 0 CN					
<b>Certificate</b>					
Day and Evening					
POS Approved: Fall 2004					

**Other Major Courses**

NET 125	Routing and Switching I	1	4	0	3
NET 126	Routing and Switching II	1	4	0	3
NET 225	Adv. Router & Switching I	1	4	0	3
NET 226	Adv.Router & Switching II	1	4	0	3

**Total Credit Hours: 12**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

**Networking Technology - Cisco Professional**

C 25 34 0 CP				
<b>Certificate</b>				
Day and Evening				
POS Approved: Fall 2004				

**Other Major Courses**

NET 270	Scalable Networks Design	1	4	0	3
NET 271	Multi-Layer Networks	1	4	0	3
NET 272	Remote Access Networks	1	4	0	3
NET 273	Internetworking Support	1	4	0	3

**Total Credit Hours: 12**

**Networking Technology - Networking Technician**

C 25 34 0 NT				
<b>Certificate</b>				
Day and Evening				
POS Approved: Fall 2004				

**Major Courses**

**Core**

NET 110	Data Comm/Networking	2	2	0	3
NET 230	Wide Area Networking	2	2	0	3
NET 240	Network Design	3	0	0	3
NET 280	Networking Project	1	4	0	3

**Total Credit Hours: 12**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Networking Technology - Wireless Technician

C 25 34 0 WT

## Certificate

Day and Evening

POS Approved: Fall 2004

## Major Courses

### Core

NET 110	Data Comm/Networking	2	2	0	3
NET 230	Wide Area Networking	2	2	0	3
NET 240	Network Design	3	0	0	3

### Other Major Courses

NET 175	Wireless Technology	2	2	0	3
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**Total Credit Hours: 12**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Nuclear Medicine Technology

A 45 46 0

## Associate in Applied Science

Day

POS Approved: Fall 2003

## Curriculum Description

The Nuclear Medicine Technology curriculum provides the clinical and didactic experience necessary to prepare students to qualify as entry-level Nuclear Medicine Technologists.

Students will acquire the knowledge and skills necessary to properly perform clinical procedures. These skills include patient care, use of radioactive materials, operation of imaging and counting instrumentation, and laboratory procedures.

Graduates may be eligible to apply for certification/registration examinations given by the Nuclear Medicine Technology Certification Board and the American Registry of Radiologic Technologists.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 115 Oral Communication	3	0	0	3
CHM 130 Gen, Org, & Biochemistry	3	0	0	3
CHM 130A Gen, Org, & Biochem Lab	0	2	0	1

### Required Subject Area

- Natural Science/Math

(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3
• Humanities/Fine Arts Elective	3	0	0	3

(See your advisor for course list.)

- Social/Behavioral Science Elective

Course Title	Hours per Week			
	C	Lb	Cn	Cr

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

NMT 110 Intro to Nuclear Medicine	2	0	0	2
NMT 132 Overview-Clinical Nuc Med	2	0	6	4
NMT 134 Nuclear Pharmacy	2	0	0	2
NMT 211 NMT Clinical Practice I	0	0	21	7
NMT 212 Proc for Nuclear Med I	2	0	0	2
NMT 215 Non-Imaging Instrumentation	1	3	0	2
NMT 221 NMT Clinical Practice II	0	0	21	7
NMT 222 Proc for Nuclear Med II	2	0	0	2

### Other Major Courses

NMT 110A Intro to Nuc Med Lab	0	3	0	1
NMT 126 Nuclear Physics	2	0	0	2
NMT 128 Stats for Nuc Med Tech	1	3	0	2
NMT 136 Health Physics	2	0	0	2
NMT 212A Proc for Nuc Med I Lab	0	3	0	1
NMT 214 Radiobiology	2	0	0	2
NMT 218 Computers in Nuc Med	2	0	0	2
NMT 222A Proc for Nuc Med II Lab	0	3	0	1
NMT 224 In Vitro Procedures	2	0	0	2
NMT 225 Imaging Instrumentation	1	3	0	2
PHY 125 Health Sciences Physics	3	2	0	4

### Required Subject Area

- Anatomy and Physiology Option

(Select a course from the following.)

BIO 163 Basic Anat & Physiology	4	2	0	5
BIO 165 Anatomy and Physiology I	3	3	0	4
BIO 168 Anatomy and Physiology I	3	3	0	4

## Other Required Courses

CIS 111 Basic PC Literacy	1	2	0	2
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**Total Credit Hours: 74**

(Continued on next page.)

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Completion of high school or college credits in biology, chemistry, and algebra.
2. Completion of program orientation requirements which may include observational hours prior to acceptance.
3. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
4. Completion of the *Forsyth Tech Student Medical Form*.

### **Program Information**

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, NMT prefix course, or prerequisite course while enrolled in the program may result in dismissal of the student from the curriculum. Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Office Systems Technology

## Curriculum Description

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

## Office Systems Technology

A 25 36 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing 3 0 0 3

### Required Subject Area

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication 3 0 0 3

COM 231 Public Speaking 3 0 0 3

ENG 115 Oral Communication 3 0 0 3

- Humanities/Fine Arts Elective 3 0 0 3

(Select a course. See your advisor for course list.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

- Natural Science/Math Elective

(Select a course from the following.)

MAT 115 Mathematical Models 2 2 0 3

MAT 140 Survey of Mathematics 3 0 0 3

MAT 161 College Algebra 3 0 0 3

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

OST 164 Text Editing Applications 3 0 0 3

OST 184 Records Management 1 2 0 2

### Required Subject Areas

- Formatting/Word Processing

OST 134 Text Entry and Formatting 2 2 0 3

- Office Systems/Management

OST 181 Intro to Office Systems 2 2 0 3

- Computers/Information Systems

(Select a course from the following.)

CIS 110 Introduction to Computers 2 2 0 3

CIS 111 Basic PC Literacy 1 2 0 2

### Other Major Courses

ACC 120 Prin of Financial Acct 3 2 0 4

BUS 115 Business Law I 3 0 0 3

BUS 260 Business Communication 3 0 0 3

CIS 120 Spreadsheet I 2 2 0 3

CIS 152 Database Concepts & Apps 2 2 0 3

OST 122 Office Computations 1 2 0 2

OST 131 Keyboarding 1 2 0 2

OST 132 Keyboard Skill Building 1 2 0 2

OST 135 Adv Text Entry & Format 3 2 0 4

OST 137 Office Software Applicat. 1 2 0 2

OST 162 Executive Terminology 3 0 0 3

OST 236 Adv Word/Information Proc 2 2 0 3

OST 289 Office Systems Management 2 2 0 3

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

### **Required Subject Area**

#### ● Other Major Hours Electives

(Select 5-6 hours from the following.)

ACC 150	Acct Software App	1	1	20	2
BUS 110	Introduction to Business	3	0	0	3
BUS 137	Principles of Management	3	0	0	3
CIS 172	Intro to the Internet	2	3	0	3
MKT 223	Customer Service	3	0	0	3
OST 133	Adv Keyboard Skill Building	1	2	0	2
OST 136	Word Processing	1	2	0	2
OST 138	Advanced Software Applications	1	2	0	2
OST 233	Office Publications Design	2	2	0	3
OST 284	Emerging Technologies	2	0	0	2
OST 286	Professional Development	3	0	0	3

**Total Semester Hours: 70**

## **Office Systems Technology**

D 25 36 0

### **Diploma**

Day and Evening

POS Approved: Fall 2005

### **General Education Courses**

ENG 111	Expository Writing	3	0	0	3
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#### **Required Subject Area**

#### ● English Option

(Select a course from the following.)

COM 120	Interpersonal Communication	3	0	0	3
COM 231	Public Speaking	3	0	0	3
ENG 115	Oral Communication	3	0	0	3

#### ● Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118	Interpersonal Psychology	3	0	0	3
PSY 150	General Psychology	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## **Major Courses**

### **Core**

OST 164	Text Editing Applications	3	0	0	3
OST 184	Records Management	1	2	0	2

#### **Required Subject Area**

#### ● Formatting/Word Processing

OST 134	Text Entry and Formatting	2	2	0	3
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#### ● Office Systems/Management

OST 181	Intro to Office Systems	2	2	0	3
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#### ● Computers/Information Systems

(Select a course from the following.)

CIS 110	Introduction to Computers	2	2	0	3
CIS 111	Basic PC Literacy	1	2	0	2

### **Other Major Courses**

CIS 120	Spreadsheet I	2	2	0	3
OST 131	Keyboarding	1	2	0	2
OST 132	Keyboard Skill Building	1	2	0	2
OST 135	Adv Text Entry & Format	3	2	0	4
OST 162	Executive Terminology	3	0	0	3
OST 236	Adv Word/Information Proc	2	2	0	3

#### **Required Subject Area**

#### ● OST Electives

(Select 5-6 hours from the following.)

BUS 260	Business Communication	3	0	0	3
MKT 223	Customer Service	3	0	0	3
OST 122	Office Computations	1	2	0	2
OST 133	Adv Keyboard Skill Building	1	2	0	2
OST 136	Word Processing	1	2	0	2
OST 137	Office Software Applicat.	1	2	0	2
OST 233	Office Publications Design	2	2	0	3
OST 284	Emerging Technologies	2	0	0	2
OST 286	Professional Development	3	0	0	3

**Total Semester Hours: 44-46**

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Office Systems Technology

C 25 36 0

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

OST 164	Text Editing Applications	3	0	0	3
OST 184	Records Management	1	2	0	2
OST 134	Text Entry and Formatting	2	2	0	3
CIS 111	Basic PC Literacy	1	2	0	2

#### Other Major Courses

OST 131	Keyboarding	1	2	0	2
OST 162	Executive Terminology	3	0	0	3

**Total Semester Hours: 15**

## Office Systems Technology - Front Office/Information Specialist

C 25 36 0 FO

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

OST 184	Records Management	1	2	0	2
OST 181	Intro to Office Systems	2	2	0	3
CIS 111	Basic PC Literacy	1	2	0	2

#### Other Major Courses

OST 131	Keyboarding	1	2	0	2
OST 132	Keyboard Skill Building	1	2	0	2
OST 137	Office Software Applicat.	1	2	0	2

#### *Requested Subject Area*

MKT 223	Customer Service	3	0	0	3
OST 286	Professional Development	3	0	0	3

**Total Semester Hours: 16**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Office Systems Technology - Microsoft Office Specialist

C 25 36 0 MS

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

CIS 111	Basic PC Literacy	1	2	0	2
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#### Other Major Courses

CIS 120	Spreadsheet I	2	2	0	3
CIS 152	Database Concepts & Apps	2	2	0	3
OST 137	Office Software Applicat.	1	2	0	2
OST 136	Word Processing	1	2	0	2
OST 236	Advanced Word/Info Proc	2	2	0	3

**Total Semester Hours: 15**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Paralegal Technology

### Curriculum Description

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Course work includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

## Paralegal Technology

A 25 38 0

### Associate in Applied Science

Day and Evening

POS Approved: Fall 2005

### General Education Courses

ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

#### Required Subject Areas

• Humanities/Fine Arts Elective	3	0	0	3
(Select a course. See your advisor for course list.)				

Course Title	Hours per Week			
	C	Lb	Cn	Cr

• Social/Behavioral Science Elective (Select a course from the following.)				
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3
• Natural Science/Math Elective (Select a course from the following.)				
MAT 115 Mathematical Models	2	2	0	3
MAT 140 Survey of Mathematics	3	0	0	3
MAT 161 College Algebra	3	0	0	3

### Major Courses

#### Core

LEX 110 Intro to Paralegal Study	3	0	0	3
LEX 120 Legal Research/Writing I	2	2	0	3
LEX 130 Civil Injuries	3	0	0	3
LEX 140 Civil Litigation I	3	0	0	3
LEX 150 Commercial Law I	2	2	0	3
LEX 210 Real Property I	3	0	0	3
LEX 240 Family Law	3	0	0	3
LEX 250 Wills, Estates, & Trusts	2	2	0	3

#### Other Major Courses

ACC 120 Prin of Financial Acct	3	2	0	4
LEX 121 Legal Research/Writing II	2	2	0	3
LEX 280 Ethics & Professionalism	2	0	0	2
OST 131 Keyboarding	1	2	0	2
OST 134 Text Entry and Formatting	2	2	0	3

#### Required Subject Area

• Computer Elective (Select a course from the following.)				
CIS 110 Introduction to Computers	2	2	0	3
CIS 111 Basic PC Literacy	1	2	0	2
• Paralegal Elective (Select 11 hours from the following courses.)				
COE 111 Co-op Work Experience I	0	0	10	1
BUS 115 Business Law I	3	0	0	3
BUS 116 Business Law II	3	0	0	3
LEX 141 Civil Litigation II	2	2	0	3
LEX 151 Commercial Law II	3	0	0	3
LEX 160 Criminal Law & Procedure	2	2	0	3
LEX 211 Real Property II	1	4	0	3

Course Title	Hours per Week				
	C	Lb	Cn	Cr	
LEX 214 Investigat & Trial Prep	1	4	0	0	3
LEX 220 Corporate Law	2	0	0	0	2
LEX 260 Bankruptcy & Collections	3	0	0	0	3
LEX 270 Law Office Mgt/Technology	1	2	0	0	2
LEX 286 Medical Evidence Analysis	1	2	0	0	2
LEX 287 CIA Review Seminar	2	0	0	0	2

**Total Credit Hours: 66**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Accounting recommended.
2. Keyboarding recommended.

## Paralegal Technology - Business Practice

C 25 38 0 BP

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

- (Select a course from the following.)

BUS 115 Business Law I	3	0	0	0	3
LEX 150 Commercial Law I	2	2	0	0	3

- (Select a course from the following.)

BUS 116 Business Law II	3	0	0	0	3
LEX 151 Commercial Law II	3	0	0	0	3

### Other Major Courses

ACC 120 Prin of Financial Acct	3	2	0	0	4
LEX 220 Corporate Law	2	0	0	0	2
LEX 260 Bankruptcy & Collections	3	0	0	0	3
LEX 270 Law Office Mgt/ Technology	1	2	0	0	2

**Total Credit Hours: 17**

**Additional admissions requirements** to those beginning on page 7 in the *College Catalog*:

1. Accounting recommended.
2. Keyboarding recommended.

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

## Paralegal Technology - Family Law

C 25 38 0 FL

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

LEX 140 Civil Litigation I	3	0	0	0	3
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#### Other Major Courses

LEX 141 Civil Litigation II	2	2	0	0	3
LEX 214 Investigat & Trial Prep	1	4	0	0	3
LEX 240 Family Law	3	0	0	0	3

**Total Credit Hours: 12**

## Paralegal Technology - Litigation

C 25 38 0 L

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

LEX 130 Civil Injuries	3	0	0	0	3
LEX 140 Civil Litigation I	3	0	0	0	3

#### Other Major Courses

LEX 141 Civil Litigation II	2	2	0	0	3
LEX 160 Criminal Law & Procedure	2	2	0	0	3
LEX 214 Investigat & Trial Prep	1	4	0	0	3

**Total Credit Hours: 15**

(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## **Paralegal Technology - Personal Injury**

C 25 38 0 PI

### **Certificate**

Day and Evening

POS Approved: Fall 2005

### **Major Courses**

#### **Core**

LEX 130 Civil Injuries 3 0 0 3

LEX 140 Civil Litigation I 3 0 0 3

#### **Other Major Courses**

LEX 141 Civil Litigation II 2 2 0 3

LEX 214 Investigat & Trial Prep 1 4 0 3

LEX 286 Medical Evidence Analysis 1 2 0 2

**Total Credit Hours: 14**

## **Paralegal Technology - Real Property**

C 25 38 0 RP

### **Certificate**

Day and Evening

POS Approved: Fall 2005

### **Major Courses**

#### **Core**

LEX 210 Real Property I 3 0 0 3

LEX 250 Wills, Estates, & Trusts 2 2 0 3

#### **Other Major Courses**

ACC 120 Prin of Financial Acct 3 2 0 4

LEX 280 Ethics & Professionalism 2 0 0 2

LEX 211 Real Property II 1 4 0 3

LEX 270 Law Office Mgt/  
Technology 1 2 0 2

**Total Credit Hours: 17**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## **Paralegal Technology - Wills and Estate Administration**

C 25 38 0 WE

### **Certificate**

Day and Evening

POS Approved: Fall 2005

### **Major Courses**

#### **Core**

LEX 150 Commercial Law I 2 2 0 3

LEX 210 Real Property I 3 0 0 3

LEX 250 Wills, Estates, & Trusts 2 2 0 3

#### **Other Major Courses**

ACC 120 Prin of Financial Acct 3 2 0 4

LEX 270 Law Office Mgt/  
Technology 1 2 0 2

**Total Credit Hours: 15**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Physical Therapist Assistant

A 45 64 0 G

## Associate in Applied Science

Day

POS Approved: Fall 2003

## Curriculum Description

The Physical Therapist Assistant curriculum prepares graduates to work in direct patient care settings under the supervision of physical therapists. Assistants work to improve or restore function by alleviation or prevention of physical impairment and perform other essential activities in a physical therapy department.

Course work includes normal human anatomy and physiology, the consequences of disease or injury, and physical therapy treatment of a variety of patient conditions affecting humans throughout the life span.

Graduates may be eligible to take the licensure examination administered by the NC Board of Physical Therapy Examiners. Employment is available in general hospitals, rehabilitation centers, extended care facilities, specialty hospitals, home health agencies, private clinics, and public school systems.

## General Education Courses

ENG 111	Expository Writing	3	0	0	3
PHY 110	Conceptual Physics	3	0	0	3
PHY 110A	Conceptual Physics Lab	0	2	0	1
PSY 150	General Psychology	3	0	0	3
PSY 241	Developmental Psych	3	0	0	3

### Required Subject Areas

- English Elective

(Select a course from the following.)

COM 120	Interpersonal Communication	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

COM 231	Public Speaking	3	0	0	3
ENG 114	Prof Research & Reporting	3	0	0	3
ENG 115	Oral Communication	3	0	0	3
●	Humanities/Fine Arts Elective	3	0	0	3

(See your advisor for course list.)

## Major Courses

### Core

#### Required Subject Area

- Anatomy and Physiology
- (Select 4 hours from one of the following set(s) of courses.)

#### Set Number 1

BIO 165	Anatomy and Physiology I	3	3	0	4
BIO 166	Anatomy and Physiology II	3	3	0	4

#### Set Number 2

BIO 168	Anatomy and Physiology I	3	3	0	4
BIO 169	Anatomy and Physiology II	3	3	0	4

## Total Credit Hours: 23

*This instructional service agreement is offered to students at Forsyth Tech through the Piedmont regional physical therapy assistant program of study. Students complete general education requirements on the Forsyth Tech campus and all other courses are offered on the campus of Guilford Technical Community College. Please see your advisor for a list of courses that are offered at Guilford Technical Community College.*

### Additional admissions requirements to

those beginning on page 7 in the **College**

#### Catalog:

- College English or algebra courses with a grade of C or higher within the past 10 years may waive some required placement tests. High school algebra I or higher with a grade

of C or higher taken within the past five years may be substituted for the algebra placement test.

2. Completion of high school or college has been met.
3. Grades of C or higher are required for general education courses completed prior to program admission and enrollment in PTA course work at Guilford Tech.
4. Completion of the PSB - Health Occupations Aptitude Examination - Revised.
5. All applicants must complete a "physical therapy assistant related experience" prior to the application deadline. See admissions for more information.
6. Completion of program orientation requirements.
7. Overall grade point average of 2.0 on those courses completed at Forsyth Tech which are listed as program course requirements.
8. Completion of the ***Forsyth Tech Student Medical Form***.

### **Program Information**

This program has limited enrollment and selects students for admission. When minimum requirement are met, applicants are ranked using a point system based on grades, standardized testing (PSB), and amount of physical therapist assistant related experience. The top ranking applicants will be admitted based on space availability. A grade of C or higher is required in all physical therapist assistant (PTA) courses or the student will be suspended from the program. Guilford Tech requires demonstrated math and computer competency prior to graduation. The Physical Therapist Assistant program at Guilford Tech is fully accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA).

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Plumbing

## Curriculum Description

The Plumbing curriculum is designed to give individuals the opportunity to acquire basic skills to assist with the installation and repair of plumbing systems in residential and small buildings.

Course work includes sketching diagrams, interpretation of blueprints, and practices in plumbing assembly. Students will gain knowledge of state codes and requirements.

Graduates should qualify for employment at parts supply houses, maintenance companies, and plumbing contractors to assist with various plumbing applications.

## Plumbing (Diploma)

D 35 30 0  
**Diploma**  
 Day  
 POS Approved: Fall 2001

## General Education Courses

ENG 101	Applied Communications I	3	0	0	3
MAT 101	Applied Mathematics I	2	2	0	3

## Major Courses

### Core

BPR 130	Blueprint Reading/Const	1	2	0	2	
PLU 110	Modern Plumbing	4	1	5	0	9
PLU 120	Plumbing Applications	4	15	0	9	
PLU 130	Plumbing Systems	3	9	0	6	
PLU 140	Intro to Plumbing Codes	1	2	0	2	
PLU 150	Plumbing Diagrams	1	2	0	2	
WLD 112	Basic Welding Processes	1	3	0	2	

### Other Major Courses

**Total Credit Hours: 38**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Plumbing

C 35 30 0  
**Certificate**  
 Day  
 POS Approved: Fall 2001

## Major Courses

### Core

PLU 110	Modern Plumbing	4	15	0	9
PLU 120	Plumbing Applications	4	15	0	9

**Total Credit Hours: 18**

# Practical Nursing (Diploma)

D 45 66 0

## Diploma

Day

POS Approved: Fall 2003

## Curriculum Description

The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults.

Students will participate in assessment, planning, implementing, and evaluating nursing care.

Graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN) which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long term care/home health facilities, clinics, and physicians' offices.

## General Education Courses

ENG 111	Expository Writing	3	0	0	3
PSY 150	General Psychology	3	0	0	3

## Major Courses

### Core

NUR 101	Practical Nursing I	7	6	6	11
NUR 102	Practical Nursing II	8	0	12	12
NUR 103	Practical Nursing III	6	0	12	10

### Other Major Courses

#### Required Subject Area

- Anatomy and Physiology

BIO 165	Anatomy and Physiology I	3	3	0	4
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## Other Required Courses

ACA 111	College Student Success	1	0	0	1
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**Total Credit Hours: 44**

**Additional admissions requirements** to those beginning on page 7 in the *College*

### Catalog:

1. Completion of high school or college credits in biology and algebra.
2. Current cardiopulmonary resuscitation certification at the health care provider level.
3. Completion of program orientation requirements.
4. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in Practical Nursing.
5. Completion of the *Forsyth Tech Student Medical Form*.
6. Certification as a certified nurse assistant I (CNA I).

## Program Information

In addition to traditional classroom instruction, students may also receive curriculum content through a variety of delivery technologies, including the Internet. Students who do not have personal computers with Internet access may use the computers in the college nursing laboratory and the Learning Center.

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant II, emergency medical technology, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week				
	C	Lb	Ca	Cr	

# Radiation Therapy Technology

## Curriculum Description

The Radiation Therapy Technology curriculum is designed to train students to work in conjunction with nurses, physicists, and physicians in the application of prescribed doses of ionizing radiation for the treatment of disease, primarily cancer.

Course work includes physics, anatomy and physiology, dosimetry, and clinical oncology. The student will be skilled in treatment management, administration of prescribed radiation treatment, and provision of patient support.

Graduates may be eligible to sit for the National Radiation Therapy Exam, given by the American Registry of Radiologic Technologists. Employment opportunities can be found in hospitals and freestanding cancer centers.

## Radiation Therapy Technology

A 45 68 0

### Associate in Applied Science

Day

POS Approved: Fall 2005

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
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### Required Subject Areas

- Anatomy and Physiology

(Select a course from the following.)

BIO 163 Basic Anat & Physiology	4	2	0	5
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BIO 165 Anatomy and Physiology I3	3	0	4	
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- English Option

(Select a course from the following.)

Course Title	Hours per Week				
	C	Lb	Ca	Cr	

COM 231 Public Speaking	3	0	0	3
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ENG 115 Oral Communication	3	0	0	3
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- Humanities/Fine Arts Elective

(See your advisor for course list.)

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology	3	0	0	3
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PSY 150 General Psychology	3	0	0	3
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## Major Courses

### Core

RAD 110 Rad Intro & Patient Care	2	3	0	3
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RAD 111 RAD Procedures I	3	3	0	4
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RAD 151 RAD Clinical Ed I	0	0	6	2
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RAD 121 Radiographic Imaging I	2	3	0	3
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RTT 151 RTT Clinical Ed II	0	0	9	3
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RTT 121 Special Imaging	2	0	0	2
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RTT 161 RTT Clinical Ed III	0	0	6	2
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RTT 210 Radiobiology	2	0	0	2
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RTT 220 Rad Therapy Orientation	2	0	0	2
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RTT 221 Clinical Oncology I	3	0	0	3
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RTT 222 Clinical Oncology II	3	0	0	3
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RTT 232 Rad Therapy Procedures	2	0	0	2
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RTT 246 RTT Clinical Ed VI	0	0	18	6
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### Required Subject Areas

- Clinical Education IV

(Select a course from the following.)

RTT 238 RTT Clinical Ed IV	0	2	15	6
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RTT 240 RTT Clinical Ed IV	0	0	18	6
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- Clinical Education V

(Select a minimum of 6 hours from the following courses.)

RTT 239 RTT Clinical Ed V	0	2	18	7
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RTT 241 RTT Clinical Ed V	0	0	21	7
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RTT 243 RTT Clinical Ed V	0	0	18	6
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RTT 244 RTT Clinical Ed V	0	2	15	6
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- Dosimetry

RTT 231 Dosimetry	3	0	0	3
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### Radiation Physics

(Select 5 hours from one of the following courses.)

RAD 131 Radiographic Physics I	1	3	0	2
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(Continued on next page.)

Course Title	Hours per Week			
	C	Lb	Cn	Cr

RTT 230 General RAD THRY				
Physics	3	0	0	3
RTT 233 Rad Therapy Physics	2	0	0	2

## Total Credit Hours 72-74

**Additional admissions requirements** to those beginning on page 7 in the *College*

### **Catalog:**

1. Completion of high school or college credits in biology and algebra.
2. Current cardiopulmonary resuscitation certification at the health care provider level.
3. Completion of program orientation requirements which may include observational hours prior to acceptance.
4. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
5. Completion of the **Forsyth Tech Student Medical Form**.

### **Program Information**

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, emergency medical technician, paramedic, or any one-two-or three-year health technologies or nursing program. The Admissions Office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, RAD or RTT course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Re-admission may be possible but requires re-application and approval by the college.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Radiation Therapy Technology - Advanced Placement

A 45 68 0 A

### **Associate in Applied Science**

Day

POS Approved: Fall 2005

**Advanced placement into the Radiation Therapy Technology program is available to graduates of radiography programs accredited by the Joint Review Committee on Education in Radiologic Technology. Individuals from these programs must have equivalent college transfer credit or complete the necessary general education course work required for the degree. These courses include:**

BIO 165 Anat & Physiology	4			
ENG 111 Expository Writing	3			
ENG 115 Oral Communication	3			
PSY 150 General Psychology	3			
● Humanities/Fine Arts Elective	3	0	0	3

(See your advisor for course list.)

## Required Courses

RTT 210 Radiobiology	2	0	0	2
RTT 220 Rad Therapy Orientation	2	0	0	2
RTT 221 Clinical Oncology I	3	0	0	3
RTT 222 Clinical Oncology II	3	0	0	3
RTT 230 Gen Rad Thry Physics	3	0	0	3
RTT 231 Dosimetry	3	0	0	3
RTT 232 Rad Therapy Procedures	2	0	0	2
RTT 238 RTT Clinical Ed IV 0	2	1	5	6
RTT 239 RTT Clinical Ed V	0	2	18	7
RTT 246 RTT Clinical Ed VI	0	0	18	5

**Additional admissions requirements** to those beginning on page 7 in the *College*

### **Catalog:**

1. Completion of high school or college credits

- in biology and algebra.
2. Written recommendations from the radiography program coordinator completed on the college approved form.
  3. Current cardiopulmonary resuscitation certification at the health care provider level.
  4. Completion of program orientation requirements which may include observational hours prior to acceptance.
  5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
  6. Completion of the *Forsyth Tech Student Medical Form*.

### **Program Information**

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II, emergency medical technician, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, RTT course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Re-admission may be possible but requires re-application and approval by the college.

**Total Hours: Hours will vary depending on the General Education Courses completed prior to enrollment.**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Radiography

A 45 70 0

## Associate in Applied Science

Day

POS Approved: Fall 2005

## Curriculum Description

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body.

Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology.

Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

## General Education Courses

ENG 111 Expository Writing	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3

### Required Subject Areas

● Anatomy and Physiology (Select a course from the following.)				
BIO 163 Basic Anat & Physiology	4	2	0	5
BIO 165 Anatomy and Physiology I	3	3	0	4
● English Option				
ENG 112 Argument-Based Research	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3

Course Title	Hours per Week			
	C	Lb	Cn	Cr

● Humanities/Fine Arts Elective 3 0 0 3 (See your advisor for course list.)				
● Social/Behavioral Science Elective (Select a course from the following.)				
PSY 118 Interpersonal Psychology	3	0	0	3
PSY 150 General Psychology	3	0	0	3

## Major Courses

### Core

RAD 110 Rad Intro & Patient Care	2	3	0	3
RAD 111 RAD Procedures I	3	3	0	4
RAD 151 RAD Clinical Ed I	0	0	6	2
RAD 112 RAD Procedures II	3	3	0	4
RAD 161 RAD Clinical Ed II	0	0	15	5
RAD 121 Radiographic Imaging I	2	3	0	3
RAD 122 Radiographic Imaging II	1	3	0	2
RAD 131 Radiographic Physics I	1	3	0	2
RAD 171 RAD Clinical Ed III	0	0	12	4
RAD 211 RAD Procedures III	2	3	0	3
RAD 231 Radiographic Physics II	1	3	0	2
RAD 241 Radiobiology Protection	2	0	0	2
RAD 251 RAD ClinicalEdIV	0	0	21	7
RAD 245 Rad Quality Management	2	3	0	3
RAD 261 RAD Clinical Ed V	0	0	21	7

## Total Credit Hours: 72

**Additional admissions requirements to**  
those beginning on page 7 in the **College**

### Catalog:

1. Completion of high school or college credits in biology and algebra.
2. Current cardiopulmonary resuscitation certification at the health care provider level.
3. Completion of program orientation requirements which may include observational hours prior to acceptance.
4. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in radiography.
5. Completion of the *Forsyth Tech Student Medical Form*.

(Continued on next page.)

## **Program Information**

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II, emergency medical technician, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

Re-admission may be possible but requires re-application and approval by the college.

Radiography is considered to be a safe profession in terms of radiation exposure; however, special limits have been established for occupationally exposed declared pregnant women to ensure that the probability of birth defects is negligible. A copy of the program's pregnancy policy is included in the *Radiography Program Student Handbook* and is available to anyone upon request.

The mission of the radiography program at Forsyth Technical Community College is to actively involve the student in a learning process through a variety of educational experiences that include classroom, laboratory, and clinical education and results in a professional entry-level radiographer who will continue to learn.

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

# Real Estate

## Curriculum Description

The Real Estate curriculum provides the preclicensing education required by the North Carolina Real Estate Commission, prepares individuals to enter the profession, and offers additional education to meet professional development needs.

Course work includes the practices and principles of real estate, emphasizing financial and legal applications, property development, and property values.

Graduates should qualify for the North Carolina Real Estate license examination. They should be able to enter apprenticeship training and to provide real estate services to consumers in a competent manner.

## Real Estate

D 25 40 0

### Diploma

Evening

POS Approved: Fall 2004

## General Education Courses

ENG 115 Oral Communication 3 0 0 3

### Required Subject Area

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

RLS 112 Real Estate Fundamentals 5 0 0 5

RLS 113 Real Estate Mathematics 2 0 0 2

RLS 117 Real Estate Broker 4 0 0 4

Course Title	Hours per Week				
	C	Lb	Cn	Cr	

ACC 120 Prin of Financial Acct 3 2 0 4

## Other Major Courses

BUS 115 Business Law I 3 0 0 3

BUS 151 People Skills 3 0 0 3

BUS 225 Business Finance 2 2 0 3

RLS 220 Real Est Invest Analysis 3 0 0 3

## Required Subject Areas

- Computer Option

(Select a course from the following.)

CIS 110 Introduction to Computers 2 2 0 3

CIS 111 Basic PC Literacy 1 2 0 2

- Real Estate Option

(Select a course from the following.)

RLS 212 Real Property Management 2 0 0 2

RLS 216 Land Use Controls 2 0 0 2

## Total Credit Hours: 37

## Real Estate

C 25 40 0

### Certificate

Evening

POS Approved: Fall 2004

## Curriculum Description

The Real Estate curriculum provides the preclicensing education required by the North Carolina Real Estate Commission, prepares individuals to enter the profession, and offers additional education to meet professional development needs.

Course work includes the practices and principles of real estate, emphasizing financial and legal applications, property development, and property values.

Graduates should qualify for the North Carolina Real Estate license examination. They should be

Course Title	Hours per Week			
	C	Lb	Cn	Cr

able to enter apprenticeship training and to provide real estate services to consumers in a competent manner.

## Major Courses

### Core

RLS 112	Real Estate				
	Fundamentals	5	0	0	5
RLS 113	Real Estate Mathematics	2	0	0	2
RLS 117	Real Estate Broker	4	0	0	4

### Other Major Courses

CIS 111	Basic PC Literacy	1	2	0	2
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**Total Credit Hours: 13**

# Real Estate Appraisal (Certificate)

C 25 42 0

## Certificate

Evening

POS Approved: Fall 2003

## Curriculum Description

The Real Estate Appraisal curriculum is designed to prepare individuals to enter the appraisal profession as a registered trainee and advance to licensed or certified appraiser levels.

Course work includes appraisal theory and concepts with applications, the North Carolina Appraisers Act, North Carolina Appraisal Board rules, and the Uniform Standards of Professional Appraisal Practice.

Graduates should be prepared to complete the North Carolina Registered Trainee Examinations and advance to licensure or certification levels as requirements are met.

## Major Courses

### Core

REA 101	Intro Real Est App R-1	2	0	0	2
REA 102	Valuation Prin & Prac R-2	2	0	0	2
REA 103	Applied Res Prop Val R-3	1	0	0	1
REA 104	USPAP R-4	1	0	0	1
REA 201	Intro Income Prop				
	App G-1	2	0	0	2
REA 202	Adv Inc Capital Proc G-2	2	0	0	2
REA 203	Applied Inc Prop Val G-3	2	0	0	2

**Total Credit Hours: 12**

# Recreational Vehicle Maintenance and Repair Technology

C 60 31 0

**Certificate**

Day and Evening  
POS Approved: Fall 2002

**Curriculum Description**

This curriculum is designed to prepare individuals to work as Recreational Vehicle Maintenance Technicians.

Course work includes electrical, air conditioning, water, heating, mechanical, and LP gas systems and appliances on all types of recreational vehicles. Students will develop skills through classroom and shop/lab activities.

Graduates should qualify for employment as entry level recreational vehicle service technicians, service writers, parts counter persons, service managers, factory field technicians, or factory service representatives.

**Major Courses**

**Core**

RVM 125	RV Electrical Systems	2	6	0	4
RVM 130	LP Gas Systems/ Appliances	1	2	0	2
RVM 150	Air Conditioning Systems	1	2	0	2
RVM 160	RV Water Systems	2	4	0	4
RVM 180	Heating/Mechanical System	1	3	0	2
RVM 190	Interior/Exterior Coach	2	4	0	4

**Total Credit Hours: 18**

**\*Program Information**

Completion of this curriculum will require taking both day and evening courses.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

Course Title	Hours per Week			
	C	Lb	Cn	Cr

# Respiratory Therapy

A 45 72 0

## Associate in Applied Science

Day

POS Approved: Fall 2003

## Curriculum Description

The Respiratory Therapy curriculum prepares individuals to function as respiratory therapists. In these roles, individuals perform diagnostic testing, treatments, and management of patients with heart and lung diseases.

Students will master skills in patient assessment and treatment of cardiopulmonary diseases. These skills include life support, monitoring, drug administration, and treatment of patients of all ages in a variety of settings.

Graduates of accredited programs may be eligible to take entry-level examinations from the National Board of Respiratory Care. Therapy graduates may also take the Advanced Practitioner examination. Graduates may be employed in hospitals, clinics, nursing homes, education, industry, and home care.

## General Education Courses

ENG 111 Expository Writing 3 0 0 3

### Required Subject Area

- Anatomy and Physiology

(Select a course from the following.)

BIO 163 Basic Anat & Physiology 4 2 0 5

BIO 165 Anatomy and Physiology I 3 3 0 4

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication 3 0 0 3

COM 231 Public Speaking 3 0 0 3

ENG 114 Prof Research & Reporting 3 0 0 3

ENG 115 Oral Communication 3 0 0 3

- Humanities/Fine Arts Elective 3 0 0 3

(See your advisor for course list.)

- Social/Behavioral Science Elective

(Select a course from the following.)

PSY 118 Interpersonal Psychology 3 0 0 3

PSY 150 General Psychology 3 0 0 3

## Major Courses

### Core

RCP 110 Intro to Respiratory Care 3 3 0 4

RCP 111 Therapeutics/Diagnostics 4 3 0 5

RCP 210 Critical Care Concepts 3 3 0 4

RCP 211 Adv Monitoring/Procedures 3 3 0 4

### Required Subject Areas

- Clinical Education

(Select 23 hours from the following courses.)

RCP 132 RCP Clinical Practice I 0 0 6 2

RCP 145 RCP Clinical Practice II 0 0 15 5

RCP 153 RCP Clinical Practice III 0 0 9 3

RCP 236 RCP Clinical Practice IV 0 0 18 6

RCP 247 RCP Clinical Practice V 0 0 21 7

### Other Major Courses

RCP 112 Patient Management 3 3 0 4

RCP 113 RCP Pharmacology 2 0 0 2

RCP 114 C-P Anatomy & Physiology 3 0 0 3

RCP 115 C-P Pathophysiology 2 0 0 2

RCP 122 Special Practice Lab 0 2 0 1

RCP 123 Special Practice Lab 0 3 0 1

RCP 214 Neonatal/Peds RC 1 3 0 2

RCP 215 Career Prep-Adv Level 0 3 0 1

RCP 223 Special Practice Lab 0 3 0 1

## Total Credit Hours: 73

**Additional admission requirements** to those beginning on page 7 in the *College Catalog*:

1. Completion of high school or college credits in biology and algebra and recommendation of credits in high school chemistry.
2. Current cardiopulmonary resuscitation certification at the health care provider level.
3. Completion of program orientation requirements which include clinical observational hours prior to acceptance.
4. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in respiratory therapy.
5. Completion of the ***Forsyth Tech Student Medical Form***. A current TB test/chest x-ray and hepatitis B vaccination record must be kept up-to-date and on file.

### **Program Information**

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II, emergency medical technician, paramedic, or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

Re-admission may be possible but requires re-application and approval by the college.

Successful completion of an advanced cardiac life support (ACLS), neonatal resuscitation program (NRP), and pediatric advanced life support (PALS) provider course is a requirement for graduation from the program.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## **Therapeutic Massage**

### **Curriculum Description**

The Therapeutic Massage curriculum prepares graduates to work in direct client care settings to provide manipulation, methodical pressure, friction and kneading of the body for maintaining wellness or treating alterations in wellness throughout the lifespan.

Courses will include content in normal human anatomy and physiology, therapeutic massage, ethical/legal issues, business practices, nutrition and psychology.

Employment opportunities in North Carolina may be found in hospitals, rehabilitation centers, health departments, home health, medical offices, nursing homes, spas, health and sports clubs, and private practice. Graduates may be eligible to take the National Certification for Therapeutic Massage and Bodywork.

## **Therapeutic Massage**

A 45 75 0

### **Associate in Applied Science**

Day and Evening

POS Approved: Fall 2005

### **General Education Courses**

ENG 111 Expository Writing	3	0	0	3
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#### **Required Subject Areas**

- English Option

(Select a course from the following.)

COM 120 Interpersonal Communication	3	0	0	3
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COM 231 Public Speaking	3	0	0	3
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ENG 114 Prof Research & Reporting	3	0	0	3
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ENG 115 Oral Communication	3	0	0	3
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

- Humanities/Fine Arts Elective 3 0 0 3  
(See your advisor for course list.)

- Natural Science/Math Elective  
(Select a course from the following.)

MAT 115 Mathematical Models	2	2	0	3
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MAT 140 Survey of Mathematics	3	0	0	3
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MAT 161 College Algebra	3	0	0	3
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- Social/Behavioral Science Elective
- |                            |   |   |   |   |
|----------------------------|---|---|---|---|
| PSY 150 General Psychology | 3 | 0 | 0 | 3 |
|----------------------------|---|---|---|---|

### **Major Courses**

#### **Core**

MTH 110 Fundamentals of Massage	6	12	0	10
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MTH 120 Ther Massage Applications	6	12	0	10
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MTH 125 Ethics of Massage	2	0	0	2
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MTH 210 Adv Skills of Massage	4	12	0	8
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MTH 220 Outcome-Based Massage	4	9	0	7
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BIO 271 Pathophysiology	3	0	0	3
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#### **Required Subject Areas**

- Psychology/Human Relations
- |                         |   |   |   |   |
|-------------------------|---|---|---|---|
| BUS 152 Human Relations | 3 | 0 | 0 | 3 |
|-------------------------|---|---|---|---|

- Nutrition
- |                   |   |   |   |   |
|-------------------|---|---|---|---|
| NUT 110 Nutrition | 3 | 0 | 0 | 3 |
|-------------------|---|---|---|---|

- Business
- (Select a course from the following.)

BUS 137 Principles of Management	3	0	0	3
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BUS 230 Small Business Management	3	0	0	3
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#### **Other Major Courses**

ACA 111 College Student Success	1	0	0	1
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COE 111 Co-op Work Experience I	0	0	10	1
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MED 121 Medical Terminology I	3	0	0	3
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#### **Required Subject Area**

- Anatomy and Physiology
- |                                 |   |   |   |   |
|---------------------------------|---|---|---|---|
| BIO 163 Basic Anat & Physiology | 4 | 2 | 0 | 5 |
|---------------------------------|---|---|---|---|

### **Total Credit Hours 74**

Course Title	Hours per Week			
	C	Lb	Cn	Cr

**Additional admission requirements** to those beginning on page 7 in the *College Catalog*:

1. Completion of introduction to massage therapy (10-hour course offered through Forsyth Tech Corporate and Continuing Education).
2. Cardiopulmonary resuscitation (CPR) certification.
3. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in Therapeutic Massage.

### Program Information

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

Readmission may be possible but requires reapplication and approval by the college.

## Therapeutic Massage

D 45 75 0

### Diploma

Day and Evening

POS Approved: Fall 2005

### General Education Courses

ENG 111	Expository Writing	3	0	0	3
MAT 140	Survey of Mathematics	3	0	0	3
PSY 150	General Psychology	3	0	0	3

### Major Courses

#### Core

MTH 110	Fundamentals of Massage	6	12	0	10
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Course Title	Hours per Week			
	C	Lb	Cn	Cr

MTH 120	Ther Massage Applications	6	12	0	10
MTH 125	Ethics of Massage	2	0	0	2
BIO 271	Pathophysiology	3	0	0	3

### Other Major Courses

ACA 111	College Student Success	1	0	0	1
MED 121	Medical Terminology I	3	0	0	3
BIO 163	Basic Anat & Physiology	4	2	0	5

### Required Subject Area

- Business

(Select a course from the following.)

BUS 137	Principles of Management	3	0	0	3
BUS 230	Small Business Management	3	0	0	3

## Total Credit Hours 46

**Additional admission requirements** to those beginning on page 7 in the *College Catalog*:

1. Completion of introduction to massage therapy (10-hour course offered through Forsyth Tech Corporate and Continuing Education).
2. Cardiopulmonary resuscitation (CPR) certification.
3. A grade of C or better in all required related and program specific courses is mandatory for admission and progression in Therapeutic Massage

### Program Information

This program has limited enrollment. Students are chosen by a selective admissions process based on grades earned in required related courses (i.e. biology, English, psychology, etc.) and completion of any training such as certified nurse assistant I and II or any diploma or degree in a health or non-health field. The Admissions Office can provide additional information on the selection process.

Readmission may be possible but requires reapplication and approval by the college.

Course Title	Hours per Week			
	C	Lb	Cn	Cr

## Welding Technology

### Curriculum Description

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

## Welding Technology

D 50 42 0

### Diploma

Day and Evening

POS Approved: Fall 2005

### General Education Courses

ENG 101 Applied Communications I	3	0	0	3
MAT 101 Applied Mathematics I	2	2	0	3

### Major Courses

#### Core

WLD 110 Cutting Processes	1	3	0	2
WLD 115 SMAW (Stick) Plate	2	9	0	5

Course Title	Hours per Week			
	C	Lb	Cn	Cr

WLD 121 GMAW (MIG) FCAW/Plate	2	6	0	4
WLD 131 GTAW (TIG) Plate	2	6	0	4
WLD 141 Symbols & Specifications	2	2	0	3

### Other Major Courses

WLD 116 SMAW (Stick) Plate/Pipe	1	9	0	4
WLD 143 Welding Metallurgy	1	2	0	2
WLD 145 Thermoplastic Welding	1	3	0	2

### Required Subject Area

#### • Other Major Hours Electives

(Select a minimum of 5 hours from the following courses.)

MEC 111 Machines Processes I	1	4	0	3
WLD 151 Fabrication I	2	6	0	4
WLD 261 Certification Practices	1	3	0	2

### Total Credit Hours: 37

## Welding Technology

C 50 42 0

### Certificate

Day and Evening

POS Approved: Fall 2005

### Major Courses

#### Core

WLD 110 Cutting Processes	1	3	0	2
WLD 115 SMAW (Stick) Plate	2	9	0	5
WLD 121 GMAW (MIG) FCAW/Plate	2	6	0	4
WLD 131 GTAW (TIG) Plate	2	6	0	4
WLD 141 Symbols & Specifications	2	2	0	3

### Total Credit Hours: 18

# COURSE DESCRIPTIONS

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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## ACADEMIC RELATED

**ACA 111 College Student Success** 1 0 0 1

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces the college's physical, academic and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

**ACA 118 College Study Skills** 1 2 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

**ACA 220 Professional Transition** 1 0 0 1

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course provides preparation for meeting the demands of employment or education beyond the community college experience. Emphasis is placed on strategic planning, gathering information on workplaces or colleges and developing human interaction skills for professional, academic and/or community life. Upon completion, students should be able to successfully make the transition to appropriate workplaces or senior institutions.

## ACCOUNTING

**ACC 111 Financial Accounting** 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces the basic framework of accounting. Emphasis is placed on the accounting cycle and financial statement preparation and analysis. Upon

completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 120\* Prin of Financial Acct** 3 2 0 4

Prerequisites: None Corequisites: None

Effective Term: 2003\*03

This course introduces business decision-making accounting information systems. Emphasis is placed on analyzing, summarizing, reporting and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**ACC 121\* Prin of Managerial Acct** 3 2 0 4

Prerequisites: ACC 120 Corequisites: None

Effective Term: 2003\*03

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**ACC 129 Individual Income Taxes** 2 2 0 3

Prerequisites: None Corequisites: None

Effective Term: 2003\*03

This course introduces the relevant laws governing individual income taxation. Topics Include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law and complete various individual tax forms.

**ACC 130 Business Income Taxes** 2 2 0 3

Prerequisites: None Corequisites: None

Effective Term: 2003\*03

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies and the use of technology for the preparation of business tax returns. Upon

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr

completion, students should be able to analyze basic tax scenarios, research applicable tax law and complete various business tax forms.

**ACC 150 Acct Software Appl 1 2 0 2**

Prerequisites: ACC 115 or ACC 120 and CIS 111

Corequisites: None

Effective Term: 2003\*03

This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

**ACC 220 Intermediate Accounting I 3 2 0 4**

Prerequisites: ACC 120 Corequisites: None

Effective Term: 2006\*01

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and statements and extensive analysis of financial statements. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

**ACC 221 Intermediate Acct II 3 2 0 4**

Prerequisites: ACC 220 Corequisites: None

Effective Term: 1997\*02

This course is a continuation of ACC 220. Emphasis is placed on special problems that may include leases, bonds, investments, ratio analysis, present value applications, accounting changes and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 225 Cost Accounting 3 0 0 3**

Prerequisites: ACC 121 Corequisites: None

Effective Term: 1997\*02

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 226 Adv Managerial Accounting 3 0 0 3**

Prerequisites: ACC 121 and ACC 225

Corequisites: None

Effective Term: 2003\*03

This course is designed to develop an appreciation for the uses of cost information in the administration and control of business organizations. Emphasis is placed on how accounting data can be interpreted and used by management in planning and controlling business activities. Upon completion, students should be able to analyze and interpret cost information and present this information in a form that is usable by management.

**ACC 250 Advanced Accounting 3 0 0 3**

Prerequisites: ACC 220

Corequisites: None

Effective Term: 2003\*03

This course is designed to analyze special accounting issues, which may include business combinations, partnerships, international accounting, estates and trusts. Emphasis is placed on analyzing transactions and preparing working papers and financial statements. Upon completion, students should be able to solve a wide variety of problems by advanced application of accounting principles and procedures.

**ACC 269 Audit & Assurance Services 3 0 0 3**

Prerequisites: ACC 220

Corequisites: None

Effective Term: 2003\*03

This course introduces selected topics pertaining to the objectives, theory and practices in engagements providing auditing and other assurance services. Topics will include planning, conducting and reporting, with emphasis on the related professional ethics and standards. Upon completion, students should be able to demonstrate an understanding of the types of professional services, the related professional standards and the engagement methodology.

**ACC 270 International Accounting 3 0 0 3**

Prerequisites: ACC 120

Corequisites: None

Effective Term: 2005\*03

This course includes identifying, recording and interpreting financial information for accounting systems used in different countries. Topics include currency exchange rates, methods of setting and selecting transfer prices, practices used to account for rates of inflation and major types of taxes. Upon completion, students should be able to describe accounting systems and their impacts on different currencies and demonstrate a basic

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
knowledge of international accounting. This course is a unique concentration requirement in the International Business Concentration in the Business Administration program.		electrical power and control systems. Upon completion, students should be able to explain the basic oil, gas and electrical heating systems and describe the major components of a heating system.	
<b>ACC 279 Advanced Auditing</b> 3 0 0 3		<b>AHR 113 Comfort Cooling</b> 2 4 0 4	
Prerequisites: ACC 269 Corequisites: None		Prerequisites: None Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides advanced experience in the process of conducting audits and investigations. Emphasis is placed on statistical sampling, analysis, audit program development, professional responsibilities and the reporting function. Upon completion, students should be able to demonstrate proficiency through completion of audit simulations and/or integrated audit cases.		This course covers the installation procedures, system operations and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications and test instruments to determine proper system operation.	
<b>AIR CONDITIONING, HEATING, AND REFRIGERATION</b>		<b>AHR 114 Heat Pump Technology</b> 2 4 0 4	
<b>AHR 110 Intro to Refrigeration</b> 2 6 0 5		Prerequisites: AHR 110 or AHR 113	
Prerequisites: None Corequisites: None		Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process and use the tools and instrumentation of the trade.		This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.	
<b>AHR 111 HVACR Electricity</b> 2 2 0 3		<b>AHR 130 HVAC Controls</b> 2 2 0 3	
Prerequisites: None Corequisites: None		Prerequisites: AHR 111 or ELC 111	
Effective Term: 1997*02		Corequisites: None	
This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.		Effective Term: 1997*02	
<b>AHR 112 Heating Technology</b> 2 4 0 4		This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.	
Prerequisites: None Corequisites: None		<b>AHR 160 Refrigerant Certification</b> 1 0 0 1	
Effective Term: 1997*02		Prerequisites: None Corequisites: None	
This course covers the fundamentals of heating including oil, gas and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing,		Effective Term: 1997*02	
		This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>AHR 210 Residential Building Code</b>	1	2	0	2	<b>ARCHITECTURE</b>				
Prerequisites: None	Corequisites: None				<b>ARC 111 Intro to Arch Technology</b>	1	6	0	3
Effective Term: 1997*02					Prerequisites: None	Corequisites: None			
This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.					Effective Term: 1997*02				
<b>AHR 211 Residential System Design</b>	2	2	0	3	This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales and sketching. Topics include orthographic, axonometric and oblique drawing techniques using architectural plans, elevations, sections and details; reprographic techniques; and other related topics.				
Prerequisites: None	Corequisites: None				Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards. <i>Additionally, this course will include topics related to sketching techniques.</i>				
Effective Term: 1997*02					<b>ARC 112 Constr Matls &amp; Methods</b>	3	2	0	4
This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection and system design. Upon completion, students should be able to design a basic residential heating and cooling system.					Prerequisites: None	Corequisites: None			
<b>AHR 212 Advanced Comfort Systems</b>	2	6	0	4	Effective Term: 1997*02				
Prerequisites: AHR 114	Corequisites: None				This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.				
Effective Term: 1997*02					<b>ARC 113 Residential Arch Tech</b>	1	6	0	3
This course covers water-cooled comfort systems, water-source/geothermal heat pumps and high-efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze and troubleshoot water-cooled comfort systems, water-source/geothermal heat pumps and high efficiency heat pumps.					Prerequisites: ARC 111	Corequisites: ARC 112			
<b>AHR 250 HVAC System Diagnostics</b>	0	4	0	2	Effective Term: 1997*02				
Prerequisites: None	Corequisites: AHR 212				This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards. <i>Additionally, this course will include topics related to residential design and planning principles.</i>				
Effective Term: 1997*02					<b>ARC 114 Architectural CAD</b>	1	3	0	2
This course is a comprehensive study of air conditioning, heating and refrigeration system diagnostics and corrective measures. Topics include advanced system analysis, measurement of operating efficiency, and inspection and correction of all major system components. Upon completion, students should be able to restore a residential or commercial AHR system so that it operates at or near manufacturers' specifications.					Prerequisites: None	Corequisites: None			
					Effective Term: 1998*03				
					This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.				

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>ARC 114A Architectural CAD Lab</b> 0 3 0 1		<b>ARC 213 Design Project</b> 2 6 0 4	
Prerequisites: None Corequisites: ARC 114		Prerequisites: ARC 111, ARC 112 and ARC 114	
Effective Term: 1997*02		Corequisites: None	
This course provides a laboratory setting to enhance architectural CAD skills. Emphasis is placed on further development of commands and system operation. Upon completion, students should be able to prepare and plot scaled architectural drawings.		Effective Term: 1998*03	
<b>ARC 131 Building Codes</b> 2 2 0 3		This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.	
Prerequisites: ARC 112 or CAR 111			
Corequisites: None			
Effective Term: 2005*01			
This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects.			
<i>Additionally, this course will include topics related to land and development and zoning ordinances.</i>		<b>ARC 220 Adv Architect CAD</b> 1 3 0 2	
		Prerequisites: ARC 114 Corequisites: None	
		Effective Term: 1997*02	
		This course provides file management, productivity and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.	
<b>ARC 141 Elem Structures for Arch</b> 4 0 0 4		<b>ARC 221 Architectural 3-D CAD</b> 1 4 0 3	
Prerequisites: ARC 111 and MAT 121		Prerequisites: ARC 114 Corequisites: None	
Corequisites: None		Effective Term: 1997*02	
Effective Term: 1997*02		This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling and output options. Upon completion, students should be able to prepare architectural three-dimensional drawings and renderings. <i>Additionally, students will make a simple animation and explore other computer presentation processes.</i>	
This course covers concepts of elementary structures in architecture. Topics include structural form, statics, strength of materials, structural behavior and the relationship between structures and architectural form. Upon completion, students should be able to size simple structural elements.		<b>ARC 230 Environmental Systems</b> 3 3 0 4	
<b>ARC 211 Light Constr Technology</b> 1 6 0 3		Prerequisites: ARC 111 and MAT 121	
Prerequisites: ARC 111 Corequisites: ARC 112		Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers working drawings for light construction. Topics include plans, elevations, sections and details; schedules; and other related topics. Upon completion, students should be able to prepare a set of working drawings which are within accepted architectural standards. <i>Students will also visit construction sites to view the relationship between the drawn and built environment.</i>		This course introduces plumbing, mechanical (HVAC) and electrical systems for the architectural environment. Topics include basic plumbing, mechanical and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical and electrical systems and perform related calculations.	
<b>ARC 212 Commercial Constr Tech</b> 1 6 0 3		<b>ARC 231 Arch Presentations</b> 2 4 0 4	
Prerequisites: ARC 111 Corequisites: ARC 112		Prerequisites: ARC 111 Corequisites: None	
Effective Term: 1998*03		Effective Term: 1997*02	
This course introduces regional construction techniques for commercial plans, elevations, sections and details. Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes. <i>Students will also visit construction sites to view the relationship between the drawn and built environment.</i>		This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations and other related topics. Upon completion,	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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students should be able to present ideas graphically and do rendered presentation drawings. *Additionally, students will incorporate computer technology into the presentation process.*

**ARC 235 Architectural Portfolio** 2 3 0 3  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course covers the methodology for the creation of an architectural portfolio. Topics include preparation of marketing materials and a presentation strategy using conventional and/or digital design media. Upon completion, students should be able to produce an architectural portfolio of selected projects. *Additionally, this course will include topics related to resume and job interview preparation.*

**ARC 240 Site Planning** 2 2 0 3  
Prerequisites: ARC 111 or LAR 111  
Corequisites: None  
Effective Term: 1998\*01

This course introduces the principles of site planning, grading plans and earthwork calculations. Topics include site analysis, site work, site utilities, cut and fill, soil erosion control and other related topics. Upon completion, students should be able to prepare site development plans and details and perform cut and fill calculations.

**ARC 250 Survey of Architecture** 3 0 0 3  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion, students should be able to demonstrate an understanding of significant historical and current architectural styles.

**ARC 264 Digital Architecture** 1 3 0 2  
Prerequisites: ARC 114 Corequisites: None  
Effective Term: 1997\*02

This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations and produce a desktop publishing document.

## ART

**ART 111\* Art Appreciation** 3 0 0 3  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods and media. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

## AUTOBODY REPAIR

**AUB 111 Painting & Refinishing I** 2 6 0 4  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

**AUB 112 Painting & Refinishing II** 2 6 0 4  
Prerequisites: AUB 111 Corequisites: None  
Effective Term: 1997\*02

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems and other related topics. Upon completion, students should be able to perform spot, panel and overall refinishing repairs and identify and correct refinish problems.

**AUB 114 Special Finishes** 1 2 0 2  
Prerequisites: AUB 111 Corequisites: None  
Effective Term: 1997\*02

This course introduces multistage finishes, custom painting and protective coatings. Topics include base coats, advanced intermediate coats, clear coats and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>AUB 121 Non-Structural Damage I</b>	1	4	0	3	<b>AUB 134 Autobody MIG Welding</b>	1	4	0	3
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces safety, tools and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/ replacing of body panels to accepted standards.					This course covers the terms and procedures for welding the various metals found in today's autobody repair industry with an emphasis on personal/environmental safety. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.				
<b>AUB 122 Non-Structural Damage II</b>	2	6	0	4	<b>AUB 136 Plastics &amp; Adhesives</b>	1	4	0	3
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers safety, tools and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.					This course covers safety, plastic and adhesive identification and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair and/or replace automotive plastic components in accordance with industry standards.				
<b>AUB 131 Structural Damage I</b>	2	4	0	4	<b>AUB 150 Automotive Detailing</b>	1	3	0	2
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces safety, equipment, structural damage analysis and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.					This course covers the methods and procedures used in automotive detailing facilities. Topics include safety, engine, interior and trunk compartment detailing, buffing/polishing exterior surfaces, and cleaning and reconditioning exterior trim, fabrics and surfaces. Upon completion, students should be able to improve the overall appearance of a vehicle.				
<b>AUB 132 Structural Damage II</b>	2	6	0	4	<b>AUB 160 Body Shop Operations</b>	1	0	0	1
Prerequisites: AUB 131					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.					This course introduces the day-to-day operations of autobody repair facilities. Topics include work habits and ethics, customer relations, equipment types, materials cost and control, policies and procedures, shop safety and liabilities and other related topics. Upon completion, students should be able to understand the general operating policies and procedures associated with an autobody repair facility.				

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>AUB 162 Autobody Estimating</b>	1	2	0	2	This course covers service/repair/rebuilding of block, head and internal engine components. Topics include engine repair/reconditioning using service specifications. Upon completion, students should be able to rebuild/recondition an automobile engine to service specifications.				
Prerequisites: None									
Corequisites: None									
Effective Term: 1997*02									
This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.									
<b>AUTOMOTIVE</b>									
<b>AUT 110 Intro to Auto Technology</b>	2	2	0	3	<b>AUT 141 Suspension &amp; Steering Sys</b>	2	4	0	4
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers the basic concepts and terms of automotive technology, workplace safety, North Carolina state inspection, safety and environmental regulations and use of service information resources. Topics include familiarization with components along with identification and proper use of various automotive hand and power tools. Upon completion, students should be able to describe terms associated with automobiles, identify and use basic tools and shop equipment and conduct North Carolina safety/emissions inspections.									
<b>AUT 112 Auto Shop Management</b>	1	2	0	2	<b>AUT 151 Brake Systems</b>	2	2	0	3
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers principles of management essential to decision making, communication, authority and leadership. Topics include shop supervision, customer relations, cost effectiveness and workplace ethics. Upon completion, students should be able to describe basic automotive shop operation from a management standpoint.									
<b>AUT 115 Engine Fundamentals</b>	2	3	0	3	<b>AUT 152 Brake Systems Lab</b>	0	2	0	1
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: AUT 151				
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers the theory, construction, inspection, diagnosis and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis/repair of automotive engines using appropriate tools, equipment, procedures and service information.									
<b>AUT 116 Engine Repair</b>	1	3	0	2	<b>AUT 161 Electrical Systems</b>	2	6	0	4
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers basic electrical theory and wiring diagrams, test equipment, and diagnosis/repair/replacement of batteries, starters, alternators and basic electrical accessories. Topics include diagnosis and repair of battery, starting, charging, lighting and basic accessory systems problems. Upon completion, students should be able to diagnose, test and repair the basic electrical components of an automobile.									

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>AUT 162 Chasis Elect &amp; Electronics</b>	2	2	0	3	<b>AUT 183 Engine Performance-Fuels</b>	2	3	0	3
Prerequisites: <b>AUT 161</b>	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers electrical/electronic diagnosis/repair, including wiring diagrams, instrumentation and electronic/computer-controlled devices and accessories. Topics include interpreting wiring diagrams and diagnosis and repair of chasis electrical and electronic systems. Upon completion, students should be able to read and interpret wiring diagrams and determine/perform needed repairs on chassis electrical and electronic systems.					This course covers the principles of fuel delivery/management, exhaust/emission systems, and procedures for diagnosing and restoring engine performance using appropriate test equipment. Topics include procedures for diagnosis/repair of fuel delivery/management and exhaust/emission systems using appropriate service information. Upon completion, students should be able to describe, diagnose, and repair engine fuel delivery/management and emission control systems using appropriate service information and diagnostic equipment.				
<b>AUT 164 Automotive Electronics</b>	2	2	0	3	<b>AUT 186 Automotive Computer Appl</b>	1	2	0	2
Prerequisites: <b>AUT 161</b>	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers fundamentals of electrical/electronic circuitry, semi-conductors and microprocessors. Topics include Ohm's law, circuits, AC/DC current, solid state components, digital applications and the use of digital multimeters. Upon completion, students should be able to apply Ohm's law to diagnose and repair electrical/electronic circuits using digital multimeters and appropriate service information.					This course introduces computer operating systems, word processing and electronic automotive service information systems. Emphasis is placed on operation systems, word processing and electronic automotive service information systems. Upon completion, students should be able to use an operating system to access information pertaining to automotive technology and perform word processing.				
<b>AUT 171 Heating &amp; Air Conditioning</b>	2	3	0	3	<b>AUT 211 Automotive Machining</b>	2	6	0	4
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment and service information.					This course covers engine machining processes for remanufacturing automotive engines. Emphasis is placed on cylinder head service, machining block surfaces, reconditioning connecting rod assemblies, camshafts, flywheels and precision measurement. Upon completion, students should be able to explain the operation and proper use of automotive machining equipment.				
<b>AUT 181 Engine Performance-Electrical</b>	2	3	0	3	<b>AUT 221 Automatic Transmissions</b>	2	6	0	4
Prerequisites: <b>AUT 161</b>	Corequisites: None				Prerequisites: <b>AUT 110</b>	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers the principles, systems, and procedures required for diagnosing and restoring engine performance using electrical/electronics test equipment. Topics include procedures for diagnosis and repair of ignition, emission control and related electronic systems. Upon completion, students should be able to describe operation of and diagnose/repair ignition/ emission control systems using appropriate test equipment and service information.					This course covers operation, diagnosis, service and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.				

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>AUT 231 Manual Drive Trains/Axles</b> 2 3 0 3		<b>AUT 252 Racing Engine Preparation</b> 3 9 0 6	
Prerequisites: <b>AUT 110</b> Corequisites: None		Prerequisites: AUT 115 and AUT 116	
Effective Term: 1997*02		Corequisites: None	
This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.		Effective Term: 1997*03	
<b>AUT 232 Manual Dr Trains/Axles Lab</b> 0 3 0 1		This course includes selection and fit of proper engine components to maximize power and reliability in today's racing engines. Topics include component selection, blueprinting, machining of components, cylinder head and block preparation, balancing, matching of heads, intake manifold and camshaft for maximum power. Upon completion, students should be able to assemble a complete racing engine. This course is a unique concentration requirement in the Race Car Performance concentration in the Automotive Systems Technology program. <i>Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.</i>	
Prerequisites: None Corequisites: AUT 231		<b>AUT 253 Race Engine Accessories</b> 2 4 0 4	
Effective Term: 1997*02		Prerequisites: AUT 181 and AUT 183	
This course provides a laboratory setting to enhance the skills for diagnosing and repairing manual transmissions/transaxles, clutches, driveshafts, axles and final drives. Emphasis is placed on practical experiences that enhance the topics presented in AUT 231. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 231.		Corequisites: AUT 252	
<b>AUT 241 Adv Chassis/Suspension</b> 2 6 0 4		Effective Term: 1997*03	
Prerequisites: AUT 141 Corequisites: None		This course provides information on selection and use of components in the ignition, fuel, oiling and cooling systems. Emphasis will be placed on selecting and installing different types of systems to maximize efficiency for engine power and life. Upon completion, students should be able to install the ignition, fuel, oiling and cooling systems with modifications necessary for particular applications. This course is a unique concentration requirement in the Race Car Performance concentration in the Automotive Systems Technology program. <i>Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.</i>	
Effective Term: 1997*02		<b>AUT 254 Chassis Fabrication</b> 2 9 0 5	
This course provides advanced training in automotive chassis and suspension using computerized two- and four-wheel alignment equipment. Emphasis is placed on suspension and chassis system design, construction and repair for modern front- and rear-drive vehicles. Upon completion, students should be able to perform necessary adjustments and repairs on vehicles using computerized alignment equipment.		Prerequisites: WLD 110 and AUB 134	
<b>AUT 251 Introduction to Racing</b> 3 0 0 3		Corequisites: None	
Prerequisites: None Corequisites: None		Effective Term: 2002*03	
Effective Term: 1997*03		This course is designed to enable students to build a racing chassis following either a prepared blueprint or their own design. Topics include cutting and fitting various types of tubing and using machines and saws necessary to fabricate the race car components. Upon completion, students should be able to build a racing chassis with the correct geometric angles. This course is a unique concentration requirement in the Race Car Performance concentration in the Automotive Systems Technology program. <i>Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.</i>	
This course provides information about working safely in a racing environment, different types of racing and types of car designs. Topics include shop and truck safety and an introduction to the racing environment and various car designs. Upon completion, students should be able to work safely at both the shop and track and understand the various types and costs of racing. <i>Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.</i>			

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>AUT 255 Sheet Metal Fabrication</b>	1	3	0	2	<p>This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, the payment functions, bank loans and accounting, regulations and examinations. Upon completion, students should be able to demonstrate an understanding of the business of banking from a broad perspective.</p> <p><b>BAF 115 Marketing for Bankers</b> 3 0 0 3</p> <p>Prerequisites: None Corequisites: None</p> <p>Effective Term: 1997*02</p> <p>This course is designed to provide a practical understanding of marketing in the financial services organization. Topics include consumer motivation and buying, marketing information and research, the marketing management process, public relations and communications. Upon completion, students should be able to develop a marketing plan integrating public relations, advertising, sales promotion, selling and service distribution.</p>				
Prerequisites: None									
Corequisites: AUT 254									
Effective Term: 2002*03									
<p>This course is designed to build student's skills with the various tools and equipment necessary to make interior and exterior sheet metal panels. Emphasis is placed on cutting, bending and shaping sheet metal into the various parts necessary to build a race car. Upon completion, students should be able to form and fit to the chassis the metal panels made by them or another manufacturer. This course is a unique concentration requirement in the Race Car Performance concentration in the Automotive Systems Technology program.</p> <p><i>Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.</i></p>									
<b>AUT 256 Setting Up the Race Car</b>	3	6	0	5	<p><b>BAF 131 Fund of Bank Lending</b> 3 0 0 3</p> <p>Prerequisites: ACC 120 Corequisites: None</p> <p>Effective Term: 1997*02</p> <p>This course introduces the basic knowledge and skills needed to be an effective lender. Topics include the functions of the loan interview and credit investigation, the Cs of credit, elements of loan documentation and warning signs of problem loans. Upon completion, students should be able to demonstrate an understanding of the credit functions and regulatory issues affecting this key banking function. This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.</p>				
Prerequisites: AUT 141									
Corequisites: AUT 254									
Effective Term: 2002*03									
<p>This course covers selection of proper chassis, springs and shocks; and communicating with the driver in order to make necessary adjustments at the track. Topics include selection of springs and shocks; making changes, and keeping proper records of control arm angles, frame height and chassis travel. Upon completion, students should be able to check tire temperature and shock travel and explain how changes in the chassis set-up will increase performance. This course is a unique concentration requirement in the Race Car Performance concentration in the Automotive Systems Technology program. <i>Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.</i></p>									
<b>AUT 281 Adv Engine Performance</b>	2	2	0	3	<p><b>BAF 141 Law &amp; Banking: Principles</b> 3 0 0 3</p> <p>Prerequisites: None Corequisites: None</p> <p>Effective Term: 1997*02</p> <p>This course provides an overview of the legal aspects of banking and the legal framework within which banks function. Topics include the court system, consumer protection, tangible and intangible property ownership and the legalities and regulations of bank transactions. Upon completion, students should be able to discuss the non-technical aspects of the legal system and how these affect the bank's organization and operation. This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.</p>				
Prerequisites: AUT 181, AUT 183									
Corequisites: None									
Effective Term: 1997*02									
<p>This course utilizes service information and specialized test equipment to diagnose/repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks and service information. Upon completion, students should be able to perform advanced engine performance diagnosis and repair.</p>									
<b>BANKING AND FINANCE</b>									
<b>BAF 110 Principles of Banking</b>	3	0	0	3					
Prerequisites: None									
Corequisites: None									
Effective Term: 1997*02									



Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**BIO 163\* Basic Anat & Physiology** 4 2 0 5  
 Prerequisites: None Corequisites: None  
 Effective Term: 1997\*02

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. Enrollment in this course more than twice by written permission of the department chair only. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**BIO 165\* Anatomy and Physiology I** 3 3 0 4  
 Prerequisites: None Corequisites: None  
 Effective Term: 1997\*02

This course is the first of a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. ***The focus of this course is on the anatomy and fundamental physiology of all body systems and the cell; students may receive transfer credit for this course only when taken together with BIO 166 at the same college.***

**BIO 166\* Anatomy and Physiology II** 3 3 0 4  
 Prerequisites: BIO 165 Corequisites: None  
 Effective Term: 1997\*02

This course is the second in a two-course sequence that provides a comprehensive study of the anatomy and physiology of the human body. Topics include the

structure, function and interrelationship of organ systems with emphasis on the processes that maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and the interrelationships of all body systems. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. ***The focus of this course is on the physiology of all body systems and the cell with a review of anatomical structures; students may receive transfer credit for this course only when taken together with BIO 165 at the same college.***

**BIO 175\* General Microbiology** 2 2 0 3  
 Prerequisites: BIO 110, BIO 111, BIO 163 or, BIO 165, BIO 168  
 Corequisites: None  
 Effective Term: 2004\*03

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**BIO 250\* Genetics** 3 3 0 4  
 Prerequisites: BIO 112 Corequisites: None  
 Effective Term: 1997\*02

This course covers principles of prokaryotic and eukaryotic cell genetics. Emphasis is placed on the molecular basis of heredity, chromosome structure, patterns of Mendelian and non-Mendelian inheritance, evolution and biotechnological applications. Upon completion, students should be able to recognize and describe genetic phenomena and demonstrate knowledge of important genetic principles. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**BIO 271\* Pathophysiology** 3 0 0 3  
 Prerequisites: BIO 163, BIO 166, or BIO 169  
 Corequisites: None  
 Effective Term: 1997\*02

This course provides an in-depth study of human pathological processes and their effects on homeostasis.

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
Emphasis is placed on interrelationships among organ systems in deviations from homeostasis. Upon completion, students should be able to demonstrate a detailed knowledge of pathophysiology. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		completion, students should be able to interpret basic blueprints and visualize the features of a part.	
<b>BIO 275* Microbiology</b>	3 3 0 4	<b>BPR 115 Elc/Fluid Power Diagrams</b>	1 2 0 2
Prerequisites: BIO 110, BIO 112, BIO 163, BIO 165, or BIO 168		Prerequisites: None	Corequisites: None
Corequisites: None		Effective Term: 1997*02	
Effective Term: 1997*02		This course covers sketching of detail and assembly drawings and drawings and reading of hydraulic, pneumatic, electrical, mechanical, and piping schematics. Emphasis is placed on interpretation and communications skills utilizing sketches, symbols, diagrams, and other related topics. Upon completion, students should be able to read, demonstrate an understanding of, and draw sketches and schematics commonly used in industry.	
This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods and identification of microorganisms. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.		<b>BPR 121 Blueprint Reading: Mech</b>	1 2 0 2
		Prerequisites: BPR 111 or MAC 131	
		Corequisites: None	
		Effective Term: 1997*02	
		This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.	
<b>BIO 285* Research &amp; Measurement</b>	2 4 0 4	<b>BPR 130 Blueprint Reading/Const</b>	1 2 0 2
Prerequisites: BIO 112 and CHM 132		Prerequisites: None	Corequisites: None
Corequisites: None		Effective Term: 1997*02	
Effective Term: 1997*02		This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.	
This course provides an intensive laboratory experience with an investigative approach. Emphasis is placed on the use of various laboratory equipment and field techniques to enhance research and measurement competencies in ecology, natural resources and other related topics. Upon completion, students should be able to demonstrate competencies with laboratory equipment and prepare a presentation of a selected research topic. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.		<b>BPR 135 Schematics &amp; Diagrams</b>	2 0 0 2
		Prerequisites: None	Corequisites: None
		Effective Term: 1997*02	
		This course introduces schematics and diagrams used in a variety of occupations. Topics include interpretation of wiring diagrams, assembly drawings, exploded views, sectional drawings, and service manuals, specifications, and charts. Upon completion, students should be able to research and locate components and assemblies denoting factory specifications and requirements from service and repair manuals.	
<b>BLUEPRINT READING</b>			
<b>BPR 111 Blueprint Reading</b>	1 2 0 2		
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods and notes. Upon			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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## BIOTECHNOLOGY

### **BTC 181 Basic Lab Techniques** 3 3 0 4

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces the basic skills and knowledge necessary in a biological or chemical laboratory.

Emphasis is placed on good manufacturing practices, safety, solution preparation, and equipment operation and maintenance following standard operating procedures. Upon completion, students should be able to prepare and perform basic laboratory procedures using labware, solutions and equipment according to prescribed protocols.

### **BTC 281 Bioprocess Techniques** 2 6 0 4

Prerequisites: BTC 181 Corequisites: None

Effective Term: 1997\*02

This course covers processes used in the production of biomolecules. Emphasis is placed on the production, characterization, and purification of biological products using fermentation, centrifugation, filtration, electrophoresis and other techniques used in industry. Upon completion, students should be able to produce biological products using the various methods of bioprocessing.

### **BTC 285 Cell Culture** 2 3 0 3

Prerequisites: BIO 175 or BIO 275

Corequisites: None

Effective Term: 2005\*03

This course introduces the theory and practices required to successfully initiate and maintain plant and animal cell cultures. Topics include aseptic techniques, the growth environment, routine maintenance of cell cultures, specialized culture techniques and various applications. Upon completion, students should be able to demonstrate the knowledge and skills required to grow, maintain and manipulate cells in culture.

### **BTC 286 Immunological Techniques** 3 3 0 4

Prerequisites: BTC 285 Corequisites: None

Effective Term: 1997\*02

This course covers the principles and practices of modern immunology, including the interactions between the various cellular and chemical components of the immune response. Topics include antigens, humoral immunity, cellular immunity, complement, immunological assays, and hybridoma use and production. Upon completion students should be able to discuss the immune response, perform immunological assays and make monoclonal antibody-producing hybridomas.

### **BTC 288 Biotech Lab Experience** 0 6 0 2

Prerequisites: BIO 250 or BTC 270 and BIO 281, BIO 285 or BIO 286

Corequisites: None

Effective Term: 2005\*03

This course provides an opportunity to pursue an individual laboratory project in biotechnology. Emphasis is placed on developing, performing and maintaining records of a project in a specific area of interest. Upon completion, students should be able to complete the project with accurate records and demonstrate an understanding of the process.

## BUSINESS

### **BUS 110\* Introduction to Business** 3 0 0 3

Prerequisites: None

Corequisites: None

Effective Term: 1997\*02

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **BUS 115\* Business Law I** 3 0 0 3

Prerequisites: None

Corequisites: None

Effective Term: 1997\*02

This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **BUS 116 Business Law II** 3 0 0 3

Prerequisites: BUS 115

Corequisites: None

Effective Term: 1997\*02

This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>BUS 121 Business Math</b> 2 2 0 3			
Prerequisites: None	Corequisites: None	human relations, apply motivational techniques, and implement strategies for resolving work-related conflicts.	
Effective Term: 1997*02			
This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.		<b>BUS 225 Business Finance</b> 2 2 0 3	
		Prerequisites: ACC 120	Corequisites: None
		Effective Term: 1997*02	
		This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.	
<b>BUS 125 Personal Finance</b> 3 0 0 3		<b>BUS 230 Small Business Management</b> 3 0 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.		This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives and managerial decision making. Upon completion, students should be able to develop a small business plan.	
<b>BUS 137 Principles of Management</b> 3 0 0 3		<b>BUS 260 Business Communication</b> 3 0 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: ENG 111	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.		This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.	
<b>BUS 151 People Skills</b> 3 0 0 3		<b>BUS 270 Professional Development</b> 3 0 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces the basic concepts of identity and communication in the business setting. Topics include self-concept, values, communication styles, feelings and emotions, roles versus relationships and basic assertiveness, listening and conflict resolution. Upon completion, students should be able to distinguish between unhealthy, self-destructive, communication patterns and healthy, non-destructive, positive communication patterns.		This course provides basic knowledge of self-improvement techniques as related to success in the professional world. Topics include positive human relations, job-seeking skills and projecting positive self-image. Upon completion, students should be able to demonstrate competent personal and professional skills necessary to get and keep a job.	
<b>BUS 152 Human Relations</b> 3 0 0 3		<b>CARPENTRY</b>	
Prerequisites: None	Corequisites: None	<b>CAR 110 Introduction to Carpentry</b> 2 0 0 2	
Effective Term: 1997*02		Prerequisites: None	Corequisites: None
This course introduces the concepts of effective human interaction in the business work environment. Topics include effective communication techniques, motivation, ego states, stress, and conflict. Upon completion, students should be able to explain the importance of		Effective Term: 1999*03	
		This course introduces the student to the carpentry trade. Topics include duties of a carpenter, hand and power tools, building materials, construction methods and safety. Upon completion, students should be able to identify hand and power tools, common building materials and basic construction methods.	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>CAR 111    Carpentry I</b>	3	15	0	8	of working drawings and specifications, estimating practices and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.				
Prerequisites: None									
Corequisites: None									
Effective Term: 1999*03									
This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision.									
<b>CAR 112    Carpentry II</b>	3	15	0	8	<b>COMPUTED TOMOGRAPHY</b>				
Prerequisites: CAR 111					<b>CAT 210    CT Physics &amp; Equipment</b>	3	0	0	3
Corequisites: None					Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>				
Effective Term: 1999*03					Corequisites: None				
This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.									
<b>CAR 113    Carpentry III</b>	3	9	0	6	Effective Term: 1998*03				
Prerequisites: CAR 111					This course covers the system operations and components, image processing and display, image quality and artifacts in computed tomography. Emphasis is placed on the data acquisition components, tissue attenuation conversions, image manipulation and factors controlling image resolution. Upon completion, students should be able to understand the physics and instrumentation used in computed tomography.				
Corequisites: None					<b>CAT 211    CT Procedures</b>	4	0	0	4
Effective Term: 1997*02					Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>				
This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.									
<b>CAR 114    Residential Bldg Codes</b>	3	0	0	3	Corequisites: CAT 210				
Prerequisites: None					Effective Term: 1998*03				
Corequisites: None					This course is designed to cover specialized patient care, cross-sectional anatomy, contrast media and scanning procedures in computed tomography. Emphasis is placed on patient assessment and monitoring, contrast agents' use, radiation safety, methods of data acquisition and identification of cross-sectional anatomy. Upon completion, students should be able to integrate all facets of the imaging procedures in computed tomography.				
Effective Term: 1997*02					<b>CAT 223    CT Clinical Practicum</b>	0	0	9	3
This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.									
<b>CAR 115    Res Planning/Estimating</b>	3	0	0	3	Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>				
Prerequisites: BPR 130					Corequisites: None				
Corequisites: None					Effective Term: 1998*03				
Effective Term: 1997*02					This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.				
This course covers project planning, management and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation									

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>CAT 224 CT Clinical Practicum</b>	0	0	12	4	completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.				
Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>					<b>CAT 228 CT Clinical Practicum</b>	0	0	24	8
Corequisites: None					Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>				
Effective Term: 1998*03					Corequisites: None				
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment					Effective Term: 1998*03				
<b>CAT 225 CT Clinical Practicum</b>	0	0	15	5	This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.				
Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>					<b>CAT 231 CT Clinical Practicum</b>	0	0	33	11
Corequisites: None					Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>				
Effective Term: 1998*03					Corequisites: None				
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment					Effective Term: 1998*03				
<b>CAT 226 CT Clinical Practicum</b>	0	0	18	6	This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.				
Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>					<b>COMPUTER ENGINEERING</b>				
Corequisites: None					<b>CET 111 Computer Upgrade/Repair I</b>	2	3	0	3
Effective Term: 1998*03					Prerequisites: <b>ELC 131</b>				
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.					Corequisites: None				
<b>CAT 227 CT Clinical Practicum</b>	0	0	21	7	Effective Term: 1997*02				
Prerequisites: <b>Enrollment in the CT/MRI program or CT certificate program</b>					This course is the first of two courses covering repairing, servicing and upgrading computers and peripherals in preparation for industry certification. Topics include safety practices, CPU/memory/bus identification, disk subsystem, hardware/software installation/configuration, common device drivers, data recovery, system maintenance and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications. <i>This course is limited to students currently admitted to the Computer Engineering Technology or Electronics Engineering Technology programs.</i>				
Corequisites: None									
Effective Term: 1998*03									
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon									

Course Title		Hours Per Week				Course Title		Hours Per Week			
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr
<b>CET 211</b>	<b>Computer Upgrade/Repair II</b>	2	3	0	3						
Prerequisites: CET 111		Corequisites: None									
Effective Term: 1997*02											
This course is the second of two courses covering repairing, servicing and upgrading computers and peripherals in preparation for industry certification. Topics include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.											
<b>CET 212</b>	<b>Integrated Mfg Systems</b>	1	3	0	2						
Prerequisites: ELN 237		Corequisites: None									
Effective Term: 1997*02											
This course covers computer topics related to integrated manufacturing systems common to current manufacturing facilities. Topics include robot programming, automated control systems, PLCs, data communication, networking in an integrated manufacturing environment and other related topics. Upon completion, students should be able to program robots using teaching pendants and troubleshoot and maintain network installations related to integrated manufacturing systems.											
<b>CET 222</b>	<b>Computer Architecture</b>	2	0	0	2						
Prerequisites: None		Corequisites: None									
Effective Term: 1997*02											
This course introduces the organization and design philosophy of computer systems with respect to resource management, throughput and operating system interaction. Topics include instruction sets, registers, data types, memory management, virtual memory, cache, storage management, multi-processing and pipelining. Upon completion, students should be able to evaluate system hardware and resources for installation and configuration purposes.											
<b>CHM 090</b>	<b>Chemistry Concepts</b>	4	0	0	4						
Prerequisites: None		Corequisites: None									
Effective Term: 1997*02											
This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in college-level science courses.											
<b>CHM 090</b>	<b>Chemistry Concepts</b>	4	0	0	4						
Prerequisites: None		Corequisites: None									
Effective Term: 1997*02											
This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in college-level science courses.											
<b>CHM 092</b>	<b>Fundamentals of Chemistry</b>	3	2	0	4						
Prerequisites: None		Corequisites: None									
Effective Term: 1997*02											
This course covers fundamentals of chemistry with laboratory applications. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts and demonstrate basic laboratory skills necessary for success in college-level science courses. <i>The course will also cover special topics in chemistry intended to reinforce and supplement the basic course material.</i>											
<b>CHM 130*</b>	<b>Gen, Org, &amp; Biochemistry</b>	3	0	0	3						
Prerequisites: None		Corequisites: None									
Effective Term: 1997*02											
This course provides a survey of basic facts and principles of general, organic and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.											
<b>CHM 130A*</b>	<b>Gen, Org, &amp; Biochem Lab</b>	0	2	0	1						
Prerequisites: None		Corequisites: CHM 130									
Effective Term: 1997*02											
This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance											

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		<b>CHM 151* General Chemistry I</b>	3 3 0 4
		Prerequisites: None	Corequisites: None
		Effective Term: 1997*02	
		This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>CHM 131* Introduction to Chemistry</b>	3 0 0 3	<b>CHM 152* General Chemistry II</b>	3 3 0 4
Prerequisites: None		Prerequisites: CHM 151	Corequisites: None
Corequisites: <b>CHM 131A</b>		Effective Term: 1997*02	
Effective Term: 1997*02		This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
This course introduces the fundamental concepts of inorganic chemistry. Topics include measurements, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.		<b>CHM 251* Organic Chemistry I</b>	3 3 0 4
		Prerequisites: CHM 152	Corequisites: None
		Effective Term: 1997*02	
		This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>CHM 131A* Intro to Chemistry Lab</b>	0 3 0 1		
Prerequisites: None	Corequisites: CHM 131		
Effective Term: 1997*02			
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.			
<b>CHM 132* Organic and Biochemistry</b>	3 3 0 4		
Prerequisites: CHM 131 and CHM 131A or CHM 151			
Corequisites: None			
Effective Term: 2005*01			

Course Title	Hours Per Week
Cl Lb Cn Cr	
<b>CHM 252* Organic Chemistry II</b>	3 3 0 4
Prerequisites: CHM 251	Corequisites: None
Effective Term: 1997*02	

This course provides continuation of the systematic study of the theories, principles and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

<b>CHM 263* Analytical Chemistry</b>	3 4 0 5
Prerequisites: CHM 132	Corequisites: None
Effective Term: 1997*02	

This course covers the knowledge and laboratory skills needed to perform chemical analysis. Emphasis is placed on developing laboratory techniques used in the separation, identification and quantification of selected substances. Upon completion, students should be able to perform laboratory techniques employed in substance identification and volumetric analysis and interpret the results. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

## INFORMATION SYSTEMS

<b>CIS 110* Introduction to Computers</b>	2 2 0 3
Prerequisites: None	Corequisites: None
Effective Term: 1997*02	

This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics (Quantitative Option).

Course Title	Hours Per Week
Cl Lb Cn Cr	
<b>CIS 111 Basic PC Literacy</b>	1 2 0 2
Prerequisites: None	Corequisites: None
Effective Term: 1997*02	

This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

<b>CIS 113 Computer Basics</b>	0 2 0 1
Prerequisites: None	Corequisites: None
Effective Term: 1997*02	

This course introduces basic computer usage for non-computer majors. Emphasis is placed on developing basic personal computer skills. Upon completion, students should be able to demonstrate competence in basic computer applications sufficient to use computer-assisted instructional software.

<b>CIS 115* Intro to Prog &amp; Logic</b>	2 2 0 3
Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175	

Corequisites: None  
Effective Term: 2005\*02

This course introduces computer programming and problem solving in a programming environment, including an introduction to operating systems, text editor and a language translator. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design and implement algorithmic solutions in a programming language. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics (Quantitative Option).

<b>CIS 116 Intro PC App Development</b>	2 3 0 3
Prerequisites: None	Corequisites: None
Effective Term: 1997*02	

This course provides an introductory study of the principles of application development and end-user interface design principles. Emphasis is placed on tables, file management, data structures, sub-programs, interactive processing, sort/merge routines and libraries. Upon completion, students should be able to design and program a PC application at the introductory level.

Course Title		Hours Per Week				Course Title		Hours Per Week			
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr
<b>CIS 118</b>	<b>IS Professional Communications</b>	2	0	0	2	<b>CIS 124</b>	<b>DTP Graphics Software</b>	2	2	0	3
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 1997*02						Effective Term: 1997*02					
This course prepares the information systems professional to communicate with corporate personnel from management to end-users. Topics include information systems cost justification tools, awareness of personal hierarchy of needs, addressing these needs and discussing technical issues with non-technical personnel. Upon completion, students should be able to communicate information systems issues to technical and non-technical personnel.						This course introduces graphic design software using a variety of software packages. Emphasis is placed on efficient utilization of software capabilities. Upon completion, students should be able to incorporate appropriate graphic designs into desktop publishing publications.					
<b>CIS 120</b>	<b>Spreadsheet I</b>	2	2	0	3	<b>CIS 126</b>	<b>Graphics Software Intro</b>	2	2	0	3
Prerequisites: CIS 110 or CIS 111 or OST 137						Prerequisites: None		Corequisites: None			
Corequisites: None						Effective Term: 1997*02					
Effective Term: 2000*03						This course provides an introduction to graphic design and execution of pictorial graphics using a variety of software packages. Emphasis is placed on creation and manipulation of images using graphic design software. Upon completion, students should be able to create graphic designs and incorporate these designs into printed publications.					
This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.						<b>CIS 130</b>	<b>Survey of Operating Sys</b>	2	3	0	3
<b>CIS 121</b>	<b>User Support &amp; Softw Eval</b>	1	4	0	3	Prerequisites: <b>CIS 110 or CIS 111</b>					
Prerequisites: CIS 110 or CIS 111						Corequisites: None					
Corequisites: None						Effective Term: 1997*02					
Effective Term: 1997*02						The course covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file and directory structures; installation and setup; resource allocation, optimization and configuration; system security; and other related topics. Upon completion, students should be able to install and configure operating systems and optimize performance.					
This course provides an opportunity to evaluate software and hardware and make recommendations to meet end-user needs. Emphasis is placed on software and hardware evaluation, installation, training and support. Upon completion, students should be able to present proposals and make hardware and software recommendations based on their evaluations.						<b>CIS 145</b>	<b>Operat Sys - Single-User</b>	2	2	0	3
<b>CIS 122</b>	<b>Intro to Business Comp</b>	2	2	0	3	Prerequisites: None		Corequisites: CIS 130			
Prerequisites: CIS 110 or CIS 111						Effective Term: 1997*02					
Corequisites: None						This course introduces operating systems concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization and utilities. Upon completion, students should be able to perform operating system functions at the support level in a single-user environment.					
Effective Term: 1997*02						<b>CIS 147</b>	<b>Operating System-Windows™</b>	2	2	0	3
This course provides preparation in solving business problems using computers. Topics include hardware and software concepts, the DOS operating system, Windows™, spreadsheets and communications. Upon completion, students should be able to use DOS commands, navigate a Windows™ environment, use spreadsheet capabilities and access information in a business environment.						Prerequisites: None		Corequisites: None			
						Effective Term: 2000*03					
						This course introduces operating systems concepts for a Windows™ operating system. Topics include hardware management, file and memory management, system					

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
configuration/optimization and utilities. Upon completion, students should be able to perform operating system functions at the support level in a Windows™ environment.		resources using presentation software in a simple interactive multimedia project. Emphasis is placed upon design and audience considerations, general prototyping and handling of media resources. Upon completion, students should be able to demonstrate an original interactive multimedia presentation implementing all of these resources in a professional manner.	
<b>CIS 152 Database Concepts &amp; Apps</b> 2 2 0 3		<b>CIS 163 Prog Interfaces Internet</b> 2 2 0 3	
Prerequisites: CIS 110 or CIS 111 or CIS 115		Prerequisites: CIS 110 or CIS 111	
Corequisites: None		Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces database design and creation using a DBMS product. Topics include database terminology, usage in industry, design theory, types of DBMS models and creation of simple tables, queries, reports and forms. Upon completion, students should be able to create simple database tables, queries, reports and forms that follow acceptable design practices.		This course creates interactive multimedia applications and applets for the Internet using web-specific languages. Emphasis is placed on audio, video, graphic and network resources and various file formats. Upon completion, students should be able create an interactive multimedia application or applet for the Internet.	
<b>CIS 154 Database Utilization</b> 1 2 0 2		<b>CIS 164 DTP Layout &amp; Design</b> 2 2 0 3	
Prerequisites: CIS 110 or CIS 111 or OST 137		Prerequisites: None	Corequisites: None
Corequisites: None		Effective Term: 1997*02	
Effective Term: 2000*03		This course introduces the fundamentals of design and page layout. Emphasis is placed on page layout organization, typography and color. Upon completion, students should be able to create projects that visually enhance communication.	
This course introduces basic functions and uses. Emphasis is placed on database manipulation with queries, reports, forms and some table creation. Upon completion, students should be able to enter and manipulate data from the end-user mode.			
<b>CIS 155 Database Theory/Analysis</b> 2 2 0 3		<b>CIS 165 Desktop Publishing I</b> 2 2 0 3	
Prerequisites: CIS 152 or CIS 157		Prerequisites: <b>CIS 110 or CIS 111</b>	
Corequisites: None		Corequisites: None	
Effective Term: 2002*03		Effective Term: 1997*02	
This course introduces database design theories and analysis. Emphasis is placed on data dictionaries, normalization, data integrity and data modeling. Upon completion, students should be able to design normalized database structures which exhibit data integrity.		This course provides an introduction to desktop publishing software capabilities. Emphasis is placed on efficient use of a page layout software package to create, design and print publications; hardware/software compatibility; and integration of specialized peripherals. Upon completion, students should be able to prepare publications given design specifications.	
<b>CIS 157 Database Programming I</b> 2 2 0 3		<b>CIS 166 Desktop Publishing II</b> 2 2 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: CIS 165	Corequisites: None
Effective Term: 2002*03		Effective Term: 1997*02	
This course is designed to develop programming proficiency in a selected DBMS. Emphasis is placed on the Data Definition Language (DDL) and Data Manipulation Language (DML) of the DBMS as well as on report generation. Upon completion, students should be able to write programs which create, update and produce reports representative of industry requirements.		This course provides advanced training in the use of a variety of desktop publishing software. Emphasis is placed on evaluation of software and hardware available for desktop publishing. Upon completion, students should be able to create and design complex publications using a variety of page layout software.	
<b>CIS 162 MM Presentation Software</b> 2 2 0 3			
Prerequisites: CIS 110 or CIS 111			
Corequisites: None			
Effective Term: 1997*02			
This course is designed to integrate visual and audio			

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>CIS 168 Desktop Presentations</b>	1	2	0	2	<b>CIS 174 Network System Manager I</b>	2	2	0	3
Prerequisites: CIS 166	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course provides advanced training in desktop publications and projects designed for business presentations. Emphasis is placed on the most appropriate software package or packages to complete simulated or 'live' business projects. Upon completion, students should be able to create and manage presentations using various microcomputer software programs.					This course covers effective network management. Topics include network file system design and security, login scripts and user menus, printing services, e-mail and backup. Upon completion, students should be able to administer an office network system.				
<b>CIS 170 Tech Support Functions I</b>	2	2	0	3	<b>CIS 175 Network Management I</b>	2	2	0	3
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 2002*03					Effective Term: 1997*02				
This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Emphasis is placed on technical support management techniques and support technologies. Upon completion, students should be able to determine the best technologies to support and solve actual technical support problems.					This course covers fundamental network administration and system management. Topics include accessing and configuring basic network services, managing directory services and using network management software. Upon completion, students should be able to apply system administrator skills in developing a network management strategy.				
<b>CIS 172 Intro to the Internet</b>	2	3	0	3	<b>CIS 215 Hardware Install/Maint</b>	2	3	0	3
Prerequisites: <b>CIS 110 or CIS 111</b>					Prerequisites: CIS 110, CIS 111 or CIS 115				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, listservers and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files and use e-mail, FTP and other Internet tools.					This course covers the basic hardware of a personal computer, including operations and interactions with software. Topics include component identification, the memory system, peripheral installation and configuration, preventive maintenance and diagnostics and repair. Upon completion, students should be able to select appropriate computer equipment, upgrade and maintain existing equipment and troubleshoot and repair non-functioning personal computers.				
<b>CIS 173 Network Theory</b>	2	2	0	3	<b>CIS 216 Software Install/Maint</b>	1	2	0	2
Prerequisites: None	Corequisites: None				Prerequisites: CIS 130	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course examines Token Ring, Ethernet and Arcnet networks. Topics include LAN topologies and design; cable characteristics; cable, interface cards, server and client installation; basic management techniques; linking networks; and troubleshooting LAN problems. Upon completion, students should be able to install both hardware and software for a small client/server LAN and troubleshoot common network problems. <i>This course will be centered around fundamental operating system knowledge and hardware/software skills.</i>					This course introduces the installation and troubleshooting aspects of personal computer software. Emphasis is placed on initial installation and optimization of system software, commercial programs, system configuration files and device drivers. Upon completion, students should be able to install, upgrade, uninstall, optimize and troubleshoot personal computer software.				
					<b>CIS 220 Spreadsheets II</b>	1	2	0	2
					Prerequisites: CIS 120	Corequisites: None			
					Effective Term: 1997*02				
					This course covers advanced spreadsheet design and				

Course Title		Hours Per Week				Course Title		Hours Per Week			
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr
<b>CIS 226</b>	<b>Trends in Technology</b>	1	2	0	2	topics. Upon completion, students should be able to effectively use the UNIX operating system and its utilities.					
Prerequisites: None		Corequisites: None									
Effective Term: 1997*02											
This course introduces emerging information systems technologies. Emphasis is placed on evolving technologies and trends in business and industry. Upon completion, students should be able to articulate an understanding of the current trends and issues in emerging technologies for information systems.											
<b>CIS 228</b>	<b>Project Manager</b>	1	2	0	2	<b>CIS 260</b>	<b>Business Graphics Apps</b>	2	2	0	3
Prerequisites: CIS 130		Corequisites: None				Prerequisites: CIS 110 or CIS 111					
Effective Term: 1997*02						Corequisites: None					
This course introduces computerized project management software. Topics include identifying critical paths, cost management, time management and problem solving. Upon completion, students should be able to plan a complete project and project time and costs accurately.						Effective Term: 1997*02					
<b>CIS 244</b>	<b>Operating System-AS/400</b>	2	3	0	3	This course utilizes graphics software in a variety of business applications. Topics include terminology, design and evaluation, graphics formats and conversion, practical applications of graphics software and integration of peripherals. Upon completion, students should be able to create and incorporate graphic designs to enhance business communications.					
Prerequisites: <b>CIS 110 or CIS 111</b>						<b>CIS 274</b>	<b>Network System Manager II</b>	2	2	0	3
Corequisites: None						Prerequisites: CIS 174		Corequisites: None			
Effective Term: 1997*02						Effective Term: 1997*02					
This course includes operating systems concepts for AS/400 systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language and support functions. Upon completion, students should be able to perform operating system functions in an AS/400 environment.						This course is a continuation of CIS 174 focusing on advanced network management, configuration and installation. Emphasis is placed on server configuration files, startup procedures, server protocol support, memory and performance concepts, and management and maintenance. Upon completion, students should be able to install and upgrade networks and servers for optimal performance. This course is a unique concentration requirement in the Network Administration and Support concentration in the Information Systems program.					
<b>CIS 245</b>	<b>Operating Systems - Multi-User</b>	2	3	0	3	<b>CIS 275</b>	<b>Network Management II</b>	2	2	0	3
Prerequisites: None		Corequisites: None				Prerequisites: CIS 175		Corequisites: None			
Effective Term: 1997*02						Effective Term: 1997*02					
This course includes operating systems concepts for multi-user systems. Topics include hardware management, file and memory management, system configuration/optimization and utilities. Upon completion, students should be able to perform operating system functions in a multi-user environment.						This course is a continuation of CIS 175 focusing on advanced enterprise networks. Topics include directory service tree planning, management distribution and protection, improving network security, auditing the network, printing, networking and system administration of an Internet node. Upon completion, students should be able to manage client services and network features and optimize network performance. This course is a unique concentration requirement in the Network Administration and Support concentration in the Information Systems program.					
<b>CIS 246</b>	<b>Operating System-UNIX</b>	2	3	0	3	<b>CIS 276</b>	<b>Helpdesk Analysis &amp; Design</b>	3	0	0	3
Prerequisites: None						Prerequisites: CIS 115 and CIS 170					
Corequisites: None						Corequisites: None					
Effective Term: 1997*02						Effective Term: 1997*02					
This course includes operating systems concepts for UNIX operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities and other related						This course examines established and evolving methodologies for the analysis, design and development of a helpdesk system. Emphasis is placed on business					

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
systems characteristics, managing information systems projects, prototyping, CASE tools and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques. This course is a unique concentration requirement in the Network Administration and Support concentration in the Information Systems program.		<b>CIS 288 Systems Project</b> 1 4 0 3	
		Prerequisites: CIS 227 or CIS 286	
		Corequisites: None	
		Effective Term: 1997*02	
		This course provides an opportunity to complete a significant systems project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation and training. Upon completion, students should be able to complete a project from the definition phase through implementation.	
<b>CIS 277 Network Design &amp; Imp</b> 2 2 0 3		<b>CARDIOVASCULAR/ VASCULAR INTERVENTIONAL TECHNOLOGY</b>	
Prerequisites: CIS 275	Corequisites: None	<b>CIT 212 Cardiac Equip &amp; Supplies</b> 2 0 0 2	
Effective Term: 1997*02		Prerequisites: Enrollment in the Cardiovascular Interventional Technology program	
This course focuses on the design, analysis and integration of a network operating system. Topics include determination of a directory tree structure and object placement, creation of time synchronization strategy, security and routing services. Upon completion, students should be able to implement a network design strategy, develop a migration strategy and create a network implementation schedule.		Corequisites: None	
		Effective Term: 2004*03	
		This course covers advanced radiography equipment, instrumentation, image enhancement techniques, physiologic monitoring equipment, inventory and supplies used in a cardiovascular lab. Emphasis is placed on Cine film and housing, digital equipment, principles of magnification, automatic injectors, catheters, guide wires, needles and other needed equipment. Upon completion, students should be able to demonstrate knowledge of general angiographic equipment, specialized imaging techniques, needed supplies and principles used in a cardiovascular interventional lab.	
<b>CIS 286 Systems Analysis &amp; Design</b> 3 0 0 3		<b>CIT 213 Radiographic Pharmacology</b> 1 0 0 1	
Prerequisites: CIS 115	Corequisites: None	Prerequisites: Enrollment in the Cardiovascular Interventional Technology program	
Effective Term: 1997*02		Corequisites: None	
This course examines established and evolving methodologies for the analysis, design and development of a business information system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.		Effective Term: 2004*03	
		This course is designed to inform the student about drugs commonly utilized in vascular and cardiovascular labs. Emphasis is placed on medication sources, uses, classifications, dosages, intravenous and intra arterial therapy, indications, contraindication, interactions and reactions for various age groups. Upon completion, students should be able to compute dosages and understand the use of therapeutic medications delivered in cardiac and vascular interventional labs.	
<b>CIS 287 Network Support</b> 2 2 0 3			
Prerequisites: CIS 274 or CIS 275			
Corequisites: None			
Effective Term: 1997*02			
This course provides experience using CD ROM and on-line research tools and hands-on experience for advanced hardware support and troubleshooting. Emphasis is placed on troubleshooting network adapter cards and cabling, network storage devices, the DOS workstation and network printing. Upon completion, students should be able to analyze, diagnose, research and fix network hardware problems. This course is a unique concentration requirement in the Network Administration and Support concentration in the Information Systems program.			

Course Title		Hours Per Week				Course Title		Hours Per Week			
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr
<b>CIT 214</b>	<b>Cardiac Procedures</b>	3	0	0	3	<b>CIT 230</b>	<b>Cardiac Interven Clinical</b>	0	0	27	9
Prerequisites: Enrollment in the Cardiovascular Interventional Technology program						Prerequisites: Enrollment in the Cardiovascular Interventional Technology program					
Corequisites: None						Corequisites: None					
Effective Term: 2004*03						Effective Term: 2004*03					
This course covers angiographic approaches to diagnostic and interventional procedures performed in a cardiovascular lab. Emphasis is placed on structure, cardiovascular anatomy, hemodynamics of vascular systems, pulmonary circulation, cardiac circulation, filming sequence and patient positioning and pathology. Upon completion, students should be able to demonstrate knowledge of cardiovascular and supporting systems, methods to visualize radiographic anatomy and conduct critical reviews of obtained images.						This course provides the opportunity to apply knowledge gained from didactic instruction to the cardiovascular interventional clinical environment. Emphasis is placed on patient care, radiation safety, recognition of cardiovascular anatomy and pathology, equipment and imaging procedures and production. Upon completion, students should be able to demonstrate selected cardiac procedures, advanced EKG interpretation, preparation of sterile supplies and maintenance of equipment and supplies.					
<b>CIT 215</b>	<b>Vascular Equip &amp; Supplies</b>	2	0	0	2	<b>CIT 235</b>	<b>Vascular Interven Clin</b>	0	0	27	9
Prerequisites: Enrollment in the Cardiovascular Interventional Technology program						Prerequisites: Enrollment in the Cardiovascular Interventional Technology program					
Corequisites: None						Corequisites: None					
Effective Term: 2004*01						Effective Term: 2004*01					
This course covers advanced radiography equipment, instrumentation, subtraction, image enhancement technologies, physiologic monitoring equipment, inventory and supplies used in a vascular interventional lab. Emphasis is placed on intensifying screens, filtration, digital equipment, manual techniques, principles of magnification, automatic injectors, catheters, guide wires and needles. Upon completion, students should be able to demonstrate knowledge of general angiographic equipment, specialized imaging techniques, needed supplies and principles used in a vascular interventional lab.						This course provides the opportunity to apply knowledge gained from didactic instruction to the vascular interventional clinical environment. Emphasis is placed on patient care, radiation safety, recognition of vascular anatomy and pathology, equipment and imaging procedures and production. Upon completion, students should be able to demonstrate selected vascular procedures, basic EKG interpretation, preparation of sterile supplies and maintenance of equipment and supplies.					
<b>CIT 217</b>	<b>Vascular Procedures</b>	3	0	0	3	<b>CIT 261</b>	<b>CIT Cardiac Exam Prep</b>	1	0	0	1
Prerequisites: Enrollment in the Cardiovascular Interventional Technology program						Prerequisites: Enrollment in the Cardiovascular Interventional Technology program					
Corequisites: None						Corequisites: None					
Effective Term: 2004*01						Effective Term: 2003*01					
This course covers angiographic approaches to diagnostic and interventional procedures performed in a vascular lab. Emphasis is placed on structure, vascular anatomy, hemodynamics of vascular systems, hemodynamics, peripherals, pulmonary circulation, ECG, neuroangiography, renal and portal systems, filming sequence, patient positioning and pathology. Upon completion, students should be able to demonstrate knowledge of vascular systems, methods used to visualize radiographic anatomy and conduct critical reviews of obtained images.						This course covers the aspects of cardiac technology as practiced in the didactic and clinical settings. Emphasis is placed upon the content specifications of the ARRT Advanced-Level exam, study skills and simulated examinations. Upon completion, students should be able to demonstrate an understanding of the topics presented for successful completion of the cardiac portion of the CIT exam.					
						<b>CIT 262</b>	<b>CIT Vascular Exam Prep</b>	1	0	0	1
						Prerequisites: Enrollment in the Cardiovascular Interventional Technology program					
						Corequisites: None					
						Effective Term: 2003*01					
						This course covers the aspects of vascular technology as practiced in the didactic and clinical settings. Emphasis is					

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
placed upon the content specifications of the ARRT Advanced-Level exam, study skills and simulated examinations. Upon completion, students should be able to demonstrate an understanding of the topics presented for successful completion of the vascular portion of the CIT exam.		juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles and case disposition.	
<b>CRIMINAL JUSTICE</b>		<b>CJC 114 Investigative Photography 1 2 0 2</b>	
<b>CJC 100 Basic Law Enforcement Trn 8 30 0 18</b>		Prerequisites: None	Corequisites: None
Prerequisite: None	Corequisites: None	Effective Term: 2006*01	
Effective Term: 2000*03		This course covers the operation of digital photographic equipment and its application to criminal justice. Topics include the use of digital cameras, storage of digital images, the retrieval of digital images and preparation of digital images as evidence. Upon completion, students should be able to demonstrate and explain the role and use of digital photography, image storage and retrieval in criminal investigations.	
This course covers basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination. <i>This is a certificate-level course.</i>		<b>CJC 120 Interviews/Interrogations 1 2 0 2</b>	
<b>CJC 111* Intro to Criminal Justice 3 0 0 3</b>		Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1997*02	
Effective Term: 1997*02		This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses and victims.	
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.		<b>CJC 121* Law Enforcement Operations 3 0 0 3</b>	
This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		Prerequisites: None	Corequisites: None
<b>CJC 112 Criminology 3 0 0 3</b>		Effective Term: 1997*02	
Prerequisites: None	Corequisites: None	This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices and issues related to law enforcement operations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	
Effective Term: 1997*02		<b>CJC 122 Community Policing 3 0 0 3</b>	
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.		Prerequisites: None	Corequisites: None
<b>CJC 113 Juvenile Justice 3 0 0 3</b>		Effective Term: 1997*02	
Prerequisites: None	Corequisites: None	This course covers the historical, philosophical and practical dimensions of community policing. Emphasis is placed on the empowerment of police and the community to find solutions to problems by forming	
Effective Term: 1997*02			
This course covers the juvenile justice system and related			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<p>partnerships. Upon completion, students should be able to define community policing, describe how community policing strategies solve problems and compare community policing to traditional policing.</p>		<p>indoor and outdoor scenes, recording, note taking, collection and preservation of evidence and submission to the crime laboratory. Upon completion, the student should be able to evaluate and search various crime scenes and demonstrate the appropriate techniques.</p>	
<p><b>CJC 131 Criminal Law</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 1997*02</p>		<p><b>CJC 145 Crime Scene CAD</b> 2 3 0 3 Prerequisites: None Corequisites: None Effective Term: 2000*01</p>	
<p>This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret and apply the appropriate statutes/elements.</p>		<p>This course introduces the student to CAD software for crime scenes. Topics include drawing, editing, file management and drafting theory and practices. Upon completion, the students should be able to produce and plot a crime scene drawing.</p>	
<p><b>CJC 132 Court Procedure &amp; Evidence</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 1997*02</p>		<p><b>CJC 146 Trace Evidence</b> 2 3 0 3 Prerequisites: None Corequisites: None Effective Term: 2000*01</p>	
<p>This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures and the admissibility of evidence.</p>		<p>This course provides a study of trace evidence as it relates to forensic science. Topics include collection, packaging, and preservation of trace evidence from crime scenes such as bombings, fires and other scenes. Upon completion, students should be able to demonstrate the fundamental concepts of trace evidence collection, preservation and submission to the crime laboratory.</p>	
<p><b>CJC 141* Corrections</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 1997*02</p>		<p><b>CJC 211 Counseling</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 1997*02</p>	
<p>This course covers the history, major philosophies, components and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control and other related topics. Upon completion, students should be able to explain the various components, processes and functions of the correctional system. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</p>		<p>This course introduces the basic elements of counseling and specific techniques applicable to the criminal justice setting. Topics include observation, listening, recording, interviewing and problem exploration necessary to form effective helping relationships. Upon completion, students should be able to discuss and demonstrate the basic techniques of counseling.</p>	
<p><b>CJC 144 Crime Scene Processing</b> 2 3 0 3 Prerequisites: None Corequisites: None Effective Term: 2000*01</p>		<p><b>CJC 212 Ethics &amp; Comm Relations</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 1997*02</p>	
<p>This course introduces the theories and practices of crime scene processing and investigating. Topics include legal considerations at the crime scene, processing</p>		<p>This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.</p>	

Course Title		Hours Per Week				Course Title		Hours Per Week			
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr
<b>CJC 213</b>	<b>Substance Abuse</b>	3	0	0	3	<b>CJC 222</b>	<b>Criminalistics</b>	3	0	0	3
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 1997*02						Effective Term: 1997*02					
This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society and treatment modalities.						This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.					
<b>CJC 214</b>	<b>Victimology</b>	3	0	0	3	<b>CJC 225</b>	<b>Crisis Intervention</b>	3	0	0	3
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 1997*02						Effective Term: 1997*02					
This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles and current victim assistance programs.						This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced and other critical and/or stressful incidents that require field analysis and/or resolution.					
<b>CJC 215</b>	<b>Organization &amp; Administration</b>	3	0	0	3	<b>CJC 231</b>	<b>Constitutional Law</b>	3	0	0	3
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 1997*02						Effective Term: 1997*02					
This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.						The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.					
<b>CJC 221</b>	<b>Investigative Principles</b>	3	2	0	4	<b>CJC 232</b>	<b>Civil Liability</b>	3	0	0	3
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 1997*02						Effective Term: 1997*02					
This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation and courtroom presentation.						This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.					

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	

**CJC 233 Correctional Law** 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces statutory/case law pertinent to correctional concepts, facilities and related practices.

Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon, restoration of rights and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.

**CJC 241 Community-Based Corrections** 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender and the community.

**CJC 244 Footwear and Tire Imprints** 2 3 0 3

Prerequisites: None Corequisites: None

Effective Term: 2000\*01

This course provides a study of the fundamental concepts of footwear and tire imprint evidence as related to forensic science. Topics include proper photographic recording, casting, recognition of wear patterns and imprint identification. Upon completion, the student should be able to recognize, record, photograph and identify footwear and tire imprints.

**CJC 245 Friction Ridge Analysis** 2 3 0 3

Prerequisites: None Corequisites: None

Effective Term: 2000\*01

This course introduces the basic elements of fingerprint technology and techniques applicable to the criminal justice field. Topics include the history and meaning of fingerprints, pattern types and classification filing sequence, searching and referencing. Upon completion, students should be able to discuss and demonstrate the fundamental techniques of basic fingerprint technology.

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	

**CJC 246 Adv Friction Ridge Analys** 2 3 0 3

Prerequisites: CJC 245 Corequisites: None

Effective Term: 2000\*01

This course introduces the theories and processes of advanced friction ridge analysis. Topics include evaluation of friction ridges, chart preparation, comparative analysis for valued determination rendering proper identification, chemical enhancement and AFIS preparation and usage. Upon completion, students must show an understanding of proper procedures for friction ridge analysis through written testing and practical exercises.

**CJC 251 Forensic Chemistry I** 3 2 0 4

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course provides a study of the fundamental concepts of chemistry as it relates to forensic science. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.

**CJC 252 Forensic Chemistry II** 3 2 0 4

Prerequisites: CJC 251 Corequisites: None

Effective Term: 1997\*02

This course provides a study of specialized areas of chemistry specifically related to forensic science. Topics include properties of light, emission and absorption spectra, spectrophotometry, gas and liquid chromatography and related topics in organic and biochemistry. Upon completion, students should be able to demonstrate an understanding of specialized concepts in forensic chemistry.

## COOPERATIVE EDUCATION

**COE 110 World of Work** 1 0 0 1

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety and human relations. Upon completion, students should be able to successfully make the transition from school to work.

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>COE 111 Co-op Work Experience I</b> 0 0 10 1			
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills and satisfactorily perform work-related competencies. <i>Enrollment in the course will be by permission of the program coordinator or department chair and will require a 2.0 cumulative grade point average (GPA).</i>		behaviors in young children. Experiences will provide opportunities to develop observations skills, effective techniques and beginning skill adapting to the needs of individual children.	
<b>COE 112 Co-op Work Experience I</b> 0 0 20 2		<b>COE 121 Co-op Work Experience II</b> 0 0 10 1	
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills and satisfactorily perform work-related competencies. <i>Enrollment in the course will be by permission of the program coordinator or department chair and will require a 2.0 cumulative GPA.</i>		This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills and satisfactorily perform work-related competencies.	
<b>COE 113 Co-op Work Experience I</b> 0 0 30 3		<b>COE 122 Co-op Work Experience II</b> 0 0 20 2	
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills and satisfactorily perform work-related competencies. <i>Enrollment in the course will be by permission of the program coordinator or department chair and will require a 2.0 cumulative GPA.</i>		This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills and satisfactorily perform work-related competencies.	
<b>COE 115 Work Exp Seminar I</b> 1 0 0 1		<b>COE 125 Work Exp Seminar II</b> 1 0 0 1	
Prerequisites: None		Prerequisites: None	
Corequisites: COE 111, COE 112, COE 113 or COE 114		Corequisites: COE 121, COE 122, COE 123 or COE 124	
Effective Term: 1997*02		Effective Term: 1997*02	
This course utilizes case presentation, film observation and characteristic behaviors of each level of development and to derive guidelines for promoting desirable behaviors and coping with undesirable		This course provides for individual and group exploration of activities and materials useful for developing useful learning experiences for preschool children involving manipulation, experimentation and discovery. Students will be encouraged to develop their skill repertoires through shared discussion of their activity implementation.	
		<b>COE 131 Co-op Work Experience III</b> 0 0 10 1	
		Prerequisites: None	Corequisites: None
		Effective Term: 1997*02	
		This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills and satisfactorily perform work-related competencies.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>COE 135 Work Exp Seminar III</b>	1 0 0 1		
Prerequisites: None		to demonstrate interpersonal communication skills,	
Corequisites: COE 131, COE 132, COE 133 or COE 134		apply basic principles of group discussion and manage	
Effective Term: 1997*02		conflict in interpersonal communication situations. This	
This course involves extensive discussion of practices in		course has been approved to satisfy the Comprehensive	
directing preschool activities. Emphasis will be placed on		Articulation Agreement general education core	
planning activities that are age and situation appropriate		requirement in humanities/fine arts.	
and students will be encouraged to utilize all their			
relevant work experiences in contributing to the seminar.			
<b>COE 211 Co-op Work Experience IV</b>	0 0 10 1	<b>COM 231* Public Speaking</b>	3 0 0 3
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides work experience with a college-		This course provides instruction and experience in	
approved employer in an area related to the student's		preparation and delivery of speeches within a public	
program of study. Emphasis is placed on integrating		setting and group discussion. Emphasis is placed on	
classroom learning with related work experience. Upon		research, preparation, delivery, and evaluation of	
completion, students should be able to evaluate career		informative, persuasive and special occasion public	
selection, demonstrate employability skills and		speaking. Upon completion, students should be able to	
satisfactorily perform work-related competencies.		prepare and deliver well-organized speeches and	
		participate in group discussion with appropriate	
		audiovisual support. This course has been approved to	
		satisfy the Comprehensive Articulation Agreement general	
		education core requirement in humanities/fine arts.	
<b>COMMUNICATIONS</b>		<b>COMPUTER SCIENCE</b>	
<b>COM 110* Introduction to Communication</b>	3 0 0 3	<b>CSC 125 Intro to Parallel Program</b>	2 2 0 3
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 2002*03	
This course provides an overview of basic concepts of		This course introduces students to the techniques and	
communication and the skills necessary to communicate		tools used to write parallel programs. Topics include	
in various contexts. Emphasis is placed on communication		principles of parallel program design including	
theories and techniques used in interpersonal group,		architecture, algorithms, performance modeling,	
public, intercultural and mass communication situations.		parallel programming standards, Message Passing	
Upon completion, students should be able to explain and		Interface (MPI), OpenMP, API and modern parallel	
illustrate the forms and purposes of human		languages. Upon completion, students should be able	
communication in a variety of contexts. This course has		to discuss programming issues in a High Performance	
been approved to satisfy the Comprehensive Articulation		Computing System.	
Agreement general education core requirement in			
humanities/fine arts.			
<b>COM 120* Interpersonal Communication</b>	3 0 0 3	<b>CSC 134* C++ Programming</b>	2 3 0 3
Prerequisites: None	Corequisites: None	Prerequisites: CIS 110 or CIS 111 and CIS 115	
Effective Term: 1997*02		Corequisites: None	
This course introduces the practices and principles of		Effective Term: 1997*02	
interpersonal communication in both dyadic and group		This course introduces object-oriented computer	
settings. Emphasis is placed on the communication		programming using the C++ programming language.	
process, perception, listening, self-disclosure, speech		Topics include input/output operations, iteration,	
apprehension, ethics, nonverbal communication,		arithmetic operations, arrays, pointers, filters and other	
conflict, power and dysfunctional communication		related topics. Upon completion, students should be	
relationships. Upon completion, students should be able		able to design, code, test and debug C++ language	
		programs. This course has been approved to satisfy the	
		Comprehensive Articulation Agreement pre-major and/or	
		elective course requirement.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>CSC 135 COBOL Programming</b>	2 3 0 3		
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course introduces computer programming using the COBOL programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables and other related topics. Upon completion, students should be able to design, code, test and debug COBOL language programs.		should be able to design, code, test and debug JAVA language programs. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course.	
<b>CSC 138 RPG Programming</b>	2 3 0 3	<b>CSC 160 Intro to Internet Prog</b>	2 2 0 3
Prerequisites: <b>CIS 110 or CIS 111 and CIS 115</b>		Prerequisites: None	Corequisites: None
Corequisites: None		Effective Term: 2002*01	
Effective Term: 1997*02		This course introduces client-side Internet programming using HTML and Javascript. Topics include use of frames and tables, use of meta tags, Javascript techniques for site navigation. Upon completion, students should be able to write HTML documents that incorporate programming to provide web page organization and navigation functions.	
This course introduces computer programming using the RPG programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables and other related topics. Upon completion, students should be able to design, code, test and debug RPG language programs.		<b>CSC 185 Perl Programming</b>	2 3 0 3
<b>CSC 139 Visual BASIC Programming</b>	2 3 0 3	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 2002*03	
Effective Term: 1997*02		This course introduces students to the Perl Programming language. Topics include programming techniques using CGI script, input/output operations, sequence, iteration, selection, arithmetic operations, subroutines, modules, integrating database, pattern matching and other related topics. Upon completion, students should be able to design, code, test and debug Perl language programs.	
This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, forms, sequential files and other related topics. Upon completion, students should be able to design, code, test and debug Visual BASIC language programs.		<b>CSC 225 Adv Parallel Program</b>	2 3 0 3
<b>CSC 141 Visual C++ Programming</b>	2 3 0 3	Prerequisites: None	Corequisites: None
Prerequisites: <b>CIS 110 or CIS 111 and CIS 115</b>		Effective Term: 2002*03	
Corequisites: None		This course introduces students to advanced topics in parallel programming and reviews available tools and libraries for parallel programming. Topics include partitioning and scheduling techniques, performance metrics and scalability, cluster environment programming, vector processing, compiler directives, code optimization and algorithms for parallel computers. Upon completion, students should be able to design an application in a HPC environment.	
Effective Term: 1997*02		<b>CSC 234 Advanced C++</b>	2 3 0 3
This course introduces event-driven computer programming using the Visual C++ programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays and other related topics. Upon completion, students should be able to design, code, test and debug Visual C++ language programs.		Prerequisites: CSC 134	Corequisites: None
<b>CSC 148* JAVA Programming</b>	2 3 0 3	Effective Term: 1997*02	
Prerequisites: None	Corequisites: None	This course is a continuation of CSC134 using C++ with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.	
Effective Term: 1998*01			
This course introduces computer programming using the JAVA language. Topics include selection, iteration, arithmetic and logical operators, classes, inheritance, methods, arrays, user interfaces, basic applet creation and other related topics. Upon completion, students			

Course Title		Hours Per Week				Course Title		Hours Per Week			
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr
<b>CSC 235</b>	<b>Advanced COBOL</b>	2	3	0	3	<b>CSC 248</b>	<b>Adv Internet Program</b>	2	3	0	3
Prerequisites: CSC 135		Corequisites: None				Prerequisites: CSC 134 or CSC 140 or CSC 141 or CSC 148 or CSC 160					
Effective Term: 1997*02						Corequisites: None					
This course is a continuation of CSC 135 using COBOL with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.						Effective Term: 2002*03					
<b>CSC 238</b>	<b>Advanced RPG</b>	2	3	0	3	This course covers advanced programming skills required to design Internet applications. Emphasis is placed on programming techniques required to support network applications. Upon completion, students should be able to design, code, debug and document network-based programming solutions to various real-world problems using an appropriate programming language.					
Prerequisites: CSC 138		Corequisites: None				<b>CSC 258</b>	<b>JAVA Enterprise Programs</b>	2	3	0	3
Effective Term: 1997*02						Prerequisites: CSC 148		Corequisites: None			
This course is a continuation of CSC 138 using RPG with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.						Effective Term: 2002*03					
<b>CSC 239</b>	<b>Advanced Visual BASIC</b>	2	3	0	3	This course provides a continuation to CSC 148 using the Java Enterprise Edition (JEE) programming architecture. Topics include distributed network applications, database connectivity, Enterprise Java Beans, servlets, collection frameworks, JNDI, RMI, JSP, multithreading XML and multimedia development. Upon completion, students should be able to program a client/server enterprise application using the JEE framework.					
Prerequisites: CSC 139		Corequisites: None				<b>CSC 284</b>	<b>Emerging Comp Prog Tech</b>	2	3	0	3
Effective Term: 1997*02						Prerequisites: CIS 286		Corequisites: None			
This course is a continuation of CSC 139 using Visual BASIC with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.						Effective Term: 2003*01					
<b>CSC 241</b>	<b>Advanced Visual C++</b>	2	3	0	3	This course provides students with the latest technologies and strategies in the field of Computer Programming. Emphasis is placed on the evaluation of developing Computer Programming Technologies and presenting those findings to the class. Upon completion, students should be able to critically analyze emerging Computer Programming Technologies and establish informed opinions.					
Prerequisites: CSC 141		Corequisites: None				<b>CSC 285</b>	<b>Programming Project</b>	2	2	0	3
Effective Term: 1997*02						Prerequisites: CIS 115		Corequisites: None			
This course is a continuation of CSC 141 using Visual C++ with object-oriented programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, sub-programs, interactive processing, algorithms and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.						Effective Term: 2002*03					
						This course provides an opportunity to complete a significant programming project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation and implementation. Upon completion, students should be able to complete a project from the definition phase through implementation.					

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>CARDIOVASCULAR SONOGRAPHY</b>									
<b>CVS 110 C/V Sonography</b>	1	3	0	2	<b>CVS 164 Echo II</b>		3	2	0 4
Prerequisites: None					Prerequisites: CVS 163				Corequisites: None
Effective Term: 2005*02					Effective Term: 1997*02				
This course provides an introduction in the study of anatomy and pathology of vascular and cardiovascular sonography. Topics include basic sonographic terminology, basic sonographic physics, scanning skills, basic anatomy of arterial, venous, and cardiac vascular systems. Upon completion, students should be able to recognize normal and various abnormal pathologies as well as acquire basic imaging of the vascular systems.									
<b>CVS 160 CVS Clinical Ed I</b>	0	0	15	5	<b>CVS 165 Intro to Cardiovas Son</b>	1	3	0	2
Prerequisites: None					Prerequisites: None				Corequisites: None
Effective Term: 1997*02					Effective Term: 1997*02				
This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.									
<b>CVS 161 CVS Clinical Ed II</b>	0	0	24	8	<b>CVS 260 CVS Clinical Ed IV</b>	0	0	24	8
Prerequisites: CVS 160					Prerequisites: CVS 162				Corequisites: None
Effective Term: 1997*02					Effective Term: 1997*02				
This course provides continued participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.									
<b>CVS 162 CVS Clinical Ed III</b>	0	0	15	5	<b>CVS 261 CVS Clinical Ed V</b>	0	0	24	8
Prerequisites: CVS 161					Prerequisites: CVS 260				Corequisites: None
Effective Term: 1997*02					Effective Term: 1997*02				
This course provides continued participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.									
<b>CVS 163 Echo I</b>	3	2	0	4	<b>CVS 279 Cardiovascular Physics</b>	3	2	0	4
Prerequisites: None					Prerequisites: None				Corequisites: None
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers cardiac anatomy and introduces cardiac scanning techniques. Topics include normal cardiac anatomy, Doppler physics and 2-D and M-mode imaging. Upon completion, students should be able to perform 2-D and M-mode studies.									
This course is a continuation of CVS 163 with continued study of 2-D and M-mode imaging. Emphasis is placed on continuous wave, pulsed wave, color and power Doppler imaging of normal and abnormal cardiac conditions. Upon completion, students should be able to perform and recognize normal and abnormal cardiac studies.									
This course provides an introduction to the field of cardiovascular sonography. Topics include applications, sonographic terminology, basic anatomy of the heart and vascular system and basic scanning skills. Upon completion, students should be able to recognize anatomy of the heart and vascular system and be able to perform preliminary scanning techniques.									
This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.									
This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.									
This course involves the study of ultrasound physics and instrumentation as it applies to cardiovascular imaging. Emphasis is placed on Doppler physics and performing other cardiac studies. Upon completions, students should be able to understand physical principles and instrumentation used in cardiovascular imaging.									

Course Title	Hours Per Week	Course Title	Hours Per Week
	Cl Lb Cn Cr		Cl Lb Cn Cr

## DESIGN DRAFTING

<b>DDF 211    Design Process I</b>	1 6 0 4
Prerequisites: None	Corequisites: None
Effective Term: 2005*01	

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product.

<b>DDF 212    Design Process II</b>	1 6 0 4
Prerequisites: DDF 211	Corequisites: None
Effective Term: 2005*01	

This course stresses the integration of various design practices. Emphasis is placed on the creation of an original design. Upon completion, students should be able to apply engineering graphics and design procedures to produce a design project.

<b>DDF 213    Design Process III</b>	1 6 0 4
Prerequisites: DDF 212	Corequisites: None
Effective Term: 2005*01	

This course provides an opportunity to produce a complete design project. Topics include materials, production means, analysis, documentation, calculations, and specifications. Upon completion, students should be able to produce a completed design project.

<b>DDF 214    Tool Design</b>	2 4 0 4
Prerequisites: None	Corequisites: None
Effective Term: 2005*01	

This course introduces the principles of tool design. Topics including gauging, die work, and cost analysis using available catalogs and studies using manufacturing processes. Upon completion, students should be able to use catalogs to identify vendors and prepare working drawings for tooling.

## DENTAL

<b>DEN 100    Basic Orofacial Anatomy</b>	2 0 0 2
Prerequisites: None	Corequisites: None
Effective Term: 1997*02	

This course provides a basic introduction to the structures of the head, neck and oral cavity. Topics include tooth morphology, head an neck anatomy, histology and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the

practice of dental assisting. This is a diploma-level course.

<b>DEN 101    Preclinical Procedures</b>	4 6 0 7
Prerequisites: None	Corequisites: None
Effective Term: 2005*01	

This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical and dental assisting procedures. This is a diploma-level course.

<b>DEN 102    Dental Materials</b>	3 4 0 5
Prerequisites: None	Corequisites: None
Effective Term: 2005*01	

This course provides instruction in identification, properties, evaluation of quality, principles and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials. This is a diploma-level course.

<b>DEN 103    Dental Sciences</b>	2 0 0 2
Prerequisites: None	Corequisites: None
Effective Term: 1997*02	

This course is a study of oral pathology, pharmacology and dental office emergencies. Topics include oral pathological conditions, dental therapeutics and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs and respond to medical emergencies. This is a diploma-level course.

<b>DEN 104    Dental Health Education</b>	2 2 0 3
Prerequisites: None	Corequisites: None
Effective Term: 2005*01	

This course covers the study of preventive dentistry to prepare dental assisting students for the role of dental health educator. Topics include etiology of dental diseases, preventive procedures, and patient education theory and practice. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings. This is a diploma-level course.

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Gr		Cl	Lb	Cn	Gr
<b>DEN 105 Practice Management</b>	2	0	0	2	aseptic technique, infectious diseases, OSHA standards and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards and applicable North Carolina laws.				
Prerequisites: None					Corequisites: None				
Effective Term: 1997*02									
This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate fundamental skills in dental practice management. This is a diploma-level course.									
<b>DEN 106 Clinical Practice I</b>	1	0	12	5	<b>DEN 112 Dental Radiography</b>	2	3	0	3
Prerequisites: DEN 101					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 2005*01					Effective Term: 2005*01				
This course is designed to provide experience assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental assisting. This is a diploma-level course.					This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.				
<b>DEN 107 Clinical Practice II</b>	1	0	12	5	<b>DEN 120 Dental Hyg Preclinic Lec</b>	2	0	0	2
Prerequisites: DEN 106					Prerequisites: None				
Corequisites: None					Corequisites: DEN 121				
Effective Term: 1997*02					Effective Term: 1998*03				
This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures for four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II. This is a diploma-level course.					This course introduces preoperative and clinical dental hygiene concepts. Emphasis is placed on the assessment phase of patient care as well as the theory of basic dental hygiene instrumentation. Upon completion, students should be able to collect and evaluate patient data at a basic level and demonstrate knowledge of dental hygiene instrumentation.				
<b>DEN 110 Orofacial Anatomy</b>	2	2	0	3	<b>DEN 121 Dental Hygiene Precl Lab</b>	0	6	0	2
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: DEN 120				
Effective Term: 1997*02					Effective Term: 1998*03				
This course introduces the structures of the head, neck and oral cavity. Topics include tooth morphology, head and neck anatomy, histology and embryology. Upon completion, students should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.					This course provides the opportunity to perform clinical dental hygiene procedures discussed in DEN 120. Emphasis is placed on clinical skills in patient assessment and instrumentation techniques. Upon completion, students should be able to demonstrate the ability to perform specific preclinical procedures.				
<b>DEN 111 Infection/Hazard Control</b>	2	0	0	2	<b>DEN 123 Nutrition/Dental Health</b>	2	0	0	2
Prerequisites: ENG 090					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants,					This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of the food pyramid, nutrient functions, Recommended Daily Allowances and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.				

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>DEN 124 Periodontology</b>	2	0	0	2	theory and practice of patient care. Topics include modification of treatment for special needs patients, advanced radiographic interpretation and ergonomics. Upon completion, students should be able to differentiate necessary treatment modifications, effective ergonomic principles and radiographic abnormalities.				
Prerequisites: DEN 110	Corequisites: None								
Effective Term: 1997*02									
This course provides an in-depth study of the periodontium, periodontal pathology, periodontal monitoring and the principles of periodontal therapy. Topics include periodontal anatomy and a study of the etiology, classification and treatment modalities of periodontal diseases. Upon completion, students should be able to describe, compare, and contrast techniques involved in periodontal/maintenance therapy, as well as patient care management.					<b>DEN 141 Dental Hygiene Clinic II</b>	0	0	6	2
					Prerequisites: DEN 131	Corequisites: DEN 140			
					Effective Term: 1997*02				
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with early periodontal disease and subgingival deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.									
<b>DEN 125 Dental Office Emergencies</b>	0	2	0	1	<b>DEN 220 Dental Hygiene Theory III</b>	2	0	0	2
Prerequisites: None	Corequisites: None				Prerequisites: DEN 140	Corequisites: DEN 221			
Effective Term: 2000*02					Effective Term: 1997*02				
This course provides a study of the management of dental office emergencies. Topics include methods of prevention, necessary equipment/drugs, medicolegal considerations, recognition and effective initial management of a variety of emergencies. Upon completion, the student should be able to recognize, assess and manage various dental office emergencies and activate advanced medical support when indicated.					This course provides a continuation in developing the theories and practices of patient care. Topics include periodontal debridement, pain control, subgingival irrigation, air polishing and case presentations. Upon completion, students should be able to demonstrate knowledge of methods of treatment and management of periodontally compromised patients.				
<b>DEN 130 Dental Hygiene Theory I</b>	2	0	0	2	<b>DEN 221 Dental Hygiene Clinical III</b>	0	0	12	4
Prerequisites: DEN 120	Corequisites: DEN 131				Prerequisites: DEN 141	Corequisites: DEN 220			
Effective Term: 1997*02					Effective Term: 1997*02				
This course is a continuation of the didactic dental hygiene concepts necessary for providing an oral prophylaxis. Topics include deposits/removal, instrument sharpening, patient education, fluorides, planning for dental hygiene treatment, charting, and clinical records and procedures. Upon completion, students should be able to demonstrate knowledge needed to complete a thorough oral prophylaxis.					This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with moderate to advanced periodontal involvement and moderate deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.				
<b>DEN 131 Dental Hygiene Clinic I</b>	0	0	9	3	<b>DEN 222 General &amp; Oral Pathology</b>	2	0	0	2
Prerequisites: DEN 121	Corequisites: DEN 130				Prerequisites: BIO 163 or BIO 165 or BIO 168				
Effective Term: 1997*02					Corequisites: None				
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of the recall patients with gingivitis or light deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.					Effective Term: 1997*02				
This course provides a general knowledge of oral pathological manifestations associated with selected systemic and oral diseases. Topics include developmental and degenerative diseases, selected microbial diseases, specific and nonspecific immune and inflammatory responses with emphasis on recognizing abnormalities. Upon completion, students should be able to differentiate between normal and abnormal tissues and refer unusual findings to the dentist for diagnosis.									
<b>DEN 140 Dental Hygiene Theory II</b>	1	0	0	1					
Prerequisites: DEN 130	Corequisites: DEN 141								
Effective Term: 1997*02									
This course provides a continuation of the development,									

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>DEN 223 Dental Pharmacology</b>	2 0 0 2	evaluating community dental health programs. Topics include epidemiology, research methodology, biostatistics, preventive dental care, dental health education, program planning and financing and utilization of dental services. Upon completion, students should be able to assess, plan, implement and evaluate a community dental health program.	
Prerequisites: BIO 163 or BIO 165 or BIO 168 and MAT 070			
Corequisites: None			
Effective Term: 1998*03			
This course provides basic drug terminology, general principles of drug actions, dosages, routes of administration, adverse reactions and basic principles of anesthesiology. Emphasis is placed on knowledge of drugs in overall understanding of patient histories and health status. Upon completion, students should be able to recognize that each patient's general health or drug usage may require modification of the treatment procedures.			
<b>DEN 224 Materials and Procedures</b>	1 3 0 2	<b>DEN 233 Professional Development</b>	2 0 0 2
Prerequisites: DEN 111	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1998*03	
This course introduces the physical properties of materials and related procedures used in dentistry. Topics include restorative and preventive materials, fabrication of casts and appliances and chairside functions of the dental hygienist. Upon completion, students should be able to demonstrate proficiency in the laboratory and/or clinical application of routinely used dental materials and chairside functions.		This course includes professional development, ethics and jurisprudence with applications to practice management. Topics include conflict management, state laws, résumés, interviews and legal liabilities as health care professionals. Upon completion, students should be able to demonstrate the ability to practice dental hygiene within established ethical standards and state laws.	
<b>DEN 230 Dental Hygiene Theory IV</b>	1 0 0 1	<b>DRAFTING</b>	
Prerequisites: DEN 220	Corequisites: 231	<b>DFT 111 Technical Drafting I</b>	1 3 0 2
Effective Term: 1997*02		Prerequisites: None	Corequisites: None
This course provides an opportunity to increase knowledge of the profession. Emphasis is placed on dental specialties and completion of a case presentation. Upon completion, students should be able to demonstrate knowledge of various disciplines of dentistry and principles of case presentations.		Effective Term: 1999*03	
<b>DEN 231 Dental Hygiene Clinic IV</b>	0 0 12 4	This course introduces basic drafting skills, equipment and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices. <i>A portion of the class time will be devoted to computer-aided drafting.</i>	
Prerequisites: DEN 221	Corequisites: 230	<b>DFT 111A Technical Drafting I Lab</b>	0 3 0 1
Effective Term: 1997*02		Prerequisites: None	Corequisites: DFT 111
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on periodontal maintenance and on treating patients with moderate to advanced/refractory periodontal disease. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.		Effective Term: 1999*03	
<b>DEN 232 Community Dental Health</b>	2 0 3 3	This course provides a laboratory setting to enhance basic drafting skills. Emphasis is placed on practical experience that enhance the topics presented in DFT 111. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 111.	
Prerequisites: None	Corequisites: None	<b>DFT 112 Technical Drafting II</b>	1 3 0 2
Effective Term: 1998*03		Prerequisites: DFT 111	Corequisites: None
This course provides a study of the principles and methods used in assessing, planning, implementing and		Effective Term: 1999*03	
		This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections and developments. Upon completion,	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
students should be able to produce detailed working drawings. <i>A portion of the class time will be devoted to computer-aided drafting.</i>									
<b>DFT 112A Technical Drafting II Lab</b>	0	3	0	1					
Prerequisites: None	Corequisites: DFT 112								
Effective Term: 1999*03									
This course provides a laboratory setting to enhance advance drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 112. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 112.									
<b>DFT 121 Intro to GD &amp; T</b>	1	2	0	2					
Prerequisites: None	Corequisites: None								
Effective Term: 1997*02									
This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.									
<b>DFT 151 CAD I</b>	2	3	0	3					
Prerequisites: None	Corequisites: None								
Effective Term: 1997*02									
This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management and plotting. Upon completion, students should be able to produce and plot a CAD drawing.									
<b>DFT 152 CAD II</b>	2	3	0	3					
Prerequisites: None	Corequisites: None								
Effective Term: 1997*02									
This course introduces extended CAD applications. Emphasis is placed upon immediate applications of CAD skills. Upon completion, students should be able to use extended CAD applications to generate and manage drawings.									
<b>DFT 153 CAD III</b>	2	3	0	3					
Prerequisites: None	Corequisites: None								
Effective Term: 2005*01									
This course introduces advanced CAD applications. Emphasis is placed upon advanced applications of CAD skills. Upon completion, students should be able to use advanced CAD applications to generate and manage data.									
<b>ELECTRONIC COMMERCE</b>									
<b>ECM 168 Electronic Business</b>	2	2	0	3					
Prerequisites: None	Corequisites: None								
Effective Term: 2000*03									
This course provides a survey of the world of electronic business. Topics include the definition of electronic business, current practices as they evolve using Internet strategy in business and application of basic business principles to the world of Electronic-Commerce. Upon completion, students should be able to define electronic business and demonstrate an understanding of the benefits of Electronic Commerce as a foundation for developing plans leading to electronic business implementation. This course is a unique concentration requirement of the E-Commerce concentration in the Business Administration program.									
<b>ECM 210 Intro to Electronic Commerce</b>	2	2	0	3					
Prerequisites: None	Corequisites: None								
Effective Term: 2003*03									
This course introduces the concepts and tools to implement Electronic Commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs and site administration. Upon completion, students should be able to setup a working Electronic Commerce Internet web site.									
<b>ECM 220 Electronic Commerce Plan. &amp; Implem.</b>	2	2	0	3					
Prerequisites: None	Corequisites: None								
Effective Term: 2000*03									
This course builds on currently accepted business practices to develop a business plan and implementation model for Electronic Commerce. Topics include analysis and synthesis of the planning cycle, cost/benefit analysis, technical systems, marketing, security, financial support, Internet strategies, web site design, customer support and feedback and assessment. Upon completion, students should be able to develop a plan for Electronic Commerce in a small to medium size business. This course is a unique concentration requirement of the E-Commerce concentration in the Business Administration program.									
<b>ECM 230 Capstone Project</b>	1	6	0	3					
Prerequisites: ECM 220	Corequisites: None								
Effective Term: 2000*03									
This course provides experience in Electronic Commerce. Emphasis is placed on the implementation of an Electronic Commerce model for an existing business. Upon completion, students should be able to successfully develop and implement a plan for Electronic Commerce in a small to medium size business. This course is a unique concentration requirement of the E-Commerce concentration in the Business Administration program.									

Course Title	Hours Per Week	Course Title	Hours Per Week
	Cl Lb Cn Cr		Cl Lb Cn Cr

## ECONOMICS

### ECO 251\* Prin of Microeconomics 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces economic analysis of individual, business and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

### ECO 252\* Prin of Macroeconomics 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces economic analysis of aggregate employment, income and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions and alternatives for achieving socioeconomic goals. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

## EARLY CHILDHOOD EDUCATION

### EDU 111 Early Childhood Cred I 2 0 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces early childhood education and the role of the teacher in environments that encourage exploration and learning. Topics include professionalism, child growth and development, individuality, family and culture. Upon completion, students should be able to identify and demonstrate knowledge of professional roles, major areas of child growth and development and diverse families.

### EDU 112 Early Childhood Cred II 2 0 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces developmentally appropriate practices, positive guidance, and standards of health,

safety and nutrition. Topics include the learning environment, planning developmentally appropriate activities, positive guidance techniques, and health, safety and nutrition standards. Upon completion, students should be able to demonstrate developmentally appropriate activities and positive guidance techniques and describe health/sanitation/nutrition practices that promote healthy environments for children.

### EDU 113 Family/Early Child Cred 2 0 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers business/professional practices for family early childhood providers, developmentally appropriate practices, positive guidance and methods of providing a safe and healthy environment. Topics include developmentally appropriate practices; health, safety and nutrition; and business and professionalism. Upon completion, students should be able to develop a handbook of policies, procedures and practices for a family child care home.

### EDU 118 Teach Assoc Princ & Prac 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers the teacher associate's role in the educational system. Topics include history of education, professional responsibilities and ethics, cultural diversity, communication skills and identification of the optimal learning environment. Upon completion, students should be able to describe the supporting professional role of the teacher associate, demonstrate positive communication and discuss educational philosophy. This course is a unique concentration requirement in the Teacher Associate concentration in the Early Childhood Associate program.

### EDU 119 Intro into Early Child Educ 4 0 0 4

Prerequisites: None Corequisites: None

Effective Term: 2004\*03

This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for children. Topics include historical foundations, program types, career options, professionalism, and creating inclusive environments and curriculum that are responsive to the needs of children and families. Upon completion, students should be able design career plans and develop appropriate schedules, environments and activity plans while incorporating adaptations for children with exceptionalities.

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>EDU 131 Child, Family &amp; Commun</b>	3	0	0	3	This course introduces practical principles and techniques for providing developmentally appropriate guidance for all children with and without disabilities, including those at risk. Emphasis is placed on encouraging self-esteem, cultural awareness, effective communication skills, direct/indirect techniques/strategies and observation to understand the underlying causes of behavior. Upon completion, students should be able to demonstrate appropriate interactions with children and families and promote conflict resolution, self-control, self-motivation and self-esteem in children.				
Prerequisites: None									
Corequisites: None									
Effective Term: 2004*03									
This course covers the development of partnerships between families, inclusive programs for children/schools that serve young children with and without disabilities and the community. Emphasis is placed on requisite skills and benefits for successfully establishing, supporting and maintaining respectful collaborative relationships among today's diverse families, centers/schools and community resources. Upon completion, students should be able to describe appropriate relationships with parents/caretakers, center/school colleagues and community agencies that enhance the educational experiences/well-being of all children.									
<b>EDU 144 Child Development I</b>	3	0	0	3	<b>EDU 147 Behavior Disorders</b>	3	0	0	3
Prerequisites: <b>ENG 090 and RED 090</b>					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 2004*03					Effective Term: 1997*02				
This course covers the theories of child development, developmental sequences, and factors that influence children's development, from conception through pre-school for all children. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development and the multiple influences on development and learning of the whole child. Upon completion, students should be able to identify typical and atypical developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.									
<b>EDU 145 Child Development II</b>	3	0	0	3	<b>EDU 148 Learning Disabilities</b>	4	2	0	5
Prerequisites: <b>ENG 090 and RED 090</b>					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 2004*03					Effective Term: 1997*02				
This course covers theories of child development, developmental sequences, and factors that influence children's development, from pre-school through middle childhood for all children. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development multiple influences on development and learning of the whole child. Upon completion, students should be able to identify typical and atypical developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.									
<b>EDU 146 Child Guidance</b>	3	0	0	3	<b>EDU 151 Creative Activities</b>	3	0	0	3
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 2004*03					Effective Term: 2004*03				
This course covers planning, creation and adaptation of developmentally supportive learning environments with attention to curriculum, interactions, teaching practices and learning materials. Emphasis is placed on creating									

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
and adapting integrated, meaningful, challenging and engaging developmentally supportive learning experiences in art, music, movement and physical skills, and dramatics. Upon completion, students should be able to create, manage, adapt and evaluate developmentally supportive learning materials, experiences and environments.		<b>EDU 216* Foundations of Education</b> 3 2 0 4	
		Prerequisites: None	Corequisites: None
		Effective Term: 2004*03	
		This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational, structural, legal, and financial issues, PRAXIS I preparation and observation and participation in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.	
<b>EDU 153 Health, Safety &amp; Nutrit</b> 3 0 0 3		<b>EDU 221 Children with Exceptional</b> 3 0 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: EDU 144 and EDU 145 or PSY 244 and PSY 245	
Effective Term: 2004*03		Corequisites: None	
This course focuses on promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety and nutritional needs, implement safe learning environments and adhere to state regulations.		Effective Term: 2004*03	
		This course, based on the foundation of typical development, introduces working with children with exceptionalities. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the learning environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and collaborate with families and professionals to plan, implement and evaluate inclusion strategies.	
<b>EDU 185 Cognitive &amp; Lang Act</b> 3 0 0 3		<b>EDU 234 Infants, Toddlers, &amp; Twos</b> 3 0 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers methods of developing cognitive and language/communication skills in children. Emphasis is placed on planning the basic components of language and cognitive processes in developing curriculum activities. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum activities.		This course covers the skills needed to effectively implement group care for infants, toddlers and two-year olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.	
<b>EDU 186 Reading &amp; Writing Methods</b> 3 0 0 3		<b>EDU 235 School-Age Dev &amp; Program</b> 2 0 0 2	
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers concepts, resources, and methods for teaching reading and writing to school-age children. Topics include the importance of literacy, learning styles, skills assessment, various reading and writing approaches and instructional strategies. Upon completion, students should be able to assess, plan, implement, and evaluate developmentally appropriate reading and writing experiences. This course is a unique concentration requirement in the Teacher Associate concentration in the Early Childhood Associate program.		This course presents developmentally appropriate practices in group care for school-age children. Topics include principles of development, environmental planning and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for children five to twelve years of age and plan and implement age-appropriate activities.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>EDU 247 Physical Disability</b>	3 0 0 3	equipment, and implement and evaluate developmentally appropriate curriculum materials.	
Prerequisites: EDU 144 or PSY 244			
Corequisite: None			
Effective Term: 1997*02			
This course covers characteristics, intervention strategies, adaptive procedures and technologies for children with physical disabilities. Topics include intervention strategies, inclusive placement options and utilization of support services for children with physical disabilities. Upon completion, students should be able to identify and utilize intervention strategies for specific disabilities and service delivery options for those disabilities. This course is a unique concentration requirement in the Special Education concentration in the Early Childhood Associate program.			
<b>EDU 248 Mental Retardation</b>	2 2 0 3	<b>EDU 259 Curriculum Planning</b>	3 0 0 3
Prerequisites: EDU 221		Prerequisites: EDU 112 or EDU 113 or EDU 119	
Corequisites: None		Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers the causes and assessment of mental retardation and individualized instruction and curriculum for children with mental retardation. Emphasis is placed on definition, characteristics, assessment and educational strategies for children with mental retardation. Upon completion, students should be able to identify, assess and plan educational intervention strategies for children with mental retardation. This course is a unique concentration requirement in the Special Education concentration in the Early Childhood Associate program.		This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly and long-range instruction; and design environments with appropriate equipment and supplies.	
<b>EDU 250 PRAXIS I Preparation</b>	1 0 0 1	<b>EDU 261 Early Childhood Admin I</b>	2 0 0 2
Prerequisites: None		Prerequisites: None	
Corequisites: None		Corequisites: None	
Effective Term: 2004*01		Effective Term: 1997*02	
This course is designed to prepare potential teachers for the PRAXIS I exam that is necessary to enter the field of education. Emphasis is placed on content specifications of the PRAXIS I exam, study skills and simulated examinations. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of the PRAXIS I exam.		This course covers the policies, procedures and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs and describe effective methods of personnel supervision.	
<b>EDU 252 Math &amp; Sci Activities</b>	3 0 0 3	<b>Registration for the course by successful completion of practicums or permission of the program coordinator or department chair.</b>	
Prerequisites: None			
Corequisites: None			
Effective Term: 1997*02			
This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena and skills in each area. Upon completion, students should be able to identify, plan, select materials and		<b>EDU 262 Early Childhood Admin II</b>	3 0 0 3
		Prerequisites: EDU 261	
		Corequisites: None	
		Effective Term: 1997*02	
		This course provides a foundation for budgetary, financial and personnel management of the child-care center. Topics include budgeting, financial management, marketing, hiring, supervision and professional development of a child-care center. Upon completion, students should be able to formulate marketing, financial management, and fund development plans and develop personnel policies, including supervision and staff development plans.	
		<b>EDU 263 Dev School-Age Prog</b>	2 0 0 2
		Prerequisites: None	
		Corequisites: None	
		Effective Term: 1997*02	
		This course introduces the methods and procedures for operating a school-age program in either the public or proprietary setting. Emphasis is placed on constructing	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
and organizing the physical environment as well as planning and developing a school-age program. Upon completion, students should be able to plan and develop a quality school-age program.		curriculum. Topics include the history and selection of developmentally appropriate children's literature and the use of books and other media to enhance language and literacy in the classroom. Upon completion, students should be able to select appropriate books for storytelling, reading aloud, puppetry, flannel board use and other techniques.	
<b>EDU 271 Educational Technology</b>	2 2 0 3	<b>EDU 285 Internship Exp-School Age</b>	1 0 0 1
Prerequisites: None	Corequisites: None	Prerequisites: ENG 111	
Effective Term: 2004*03		Corequisites: COE 121 or COE 122	
This course introduces the use of technology to enhance teaching and learning in all educational settings. Topics include technology concepts, instructional strategies, materials and adaptive technology for children with exceptionalities, facilitation of assessment/evaluation, and ethical issues surrounding the use of technology. Upon completion, students should be able to apply technology enhanced instructional strategies, use a variety of technology resources and demonstrate appropriate technology skills in educational environments.		Effective Term: 1998*03	
<b>EDU 275 Effective Teach Train</b>	2 0 0 2	This course provides an opportunity to discuss internship experiences with peers and faculty. Emphasis is placed on evaluating and integrating practicum experiences. Upon completion, students should be able to demonstrate competence in early childhood education. This course is a unique concentration requirement in the Teacher Associate concentration in the Early Childhood Associate program.	
Prerequisites: None	Corequisites: None	<b>ENGLISH AS A FOREIGN LANGUAGE</b>	
Effective Term: 1997*02		<b>EFL 091 Composition I</b>	
This course provides specialized training using an experienced-based approach to learning. Topics include instructional preparation and presentation, student interaction, time management, learning expectations, evaluation and curriculum principles and planning. Upon completion, students should be able to prepare and present a six-step lesson plan and demonstrate ways to improve students' time-on-task.		5 0 0 5	
<b>EDU 280 Lang &amp; Literacy Exp</b>	3 0 0 3	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1997*02	
Effective Term: 2004*03		This course introduces basic sentence structure and writing paragraphs. Emphasis is placed on word order, verb tense-aspect system, auxiliaries, word forms, and simple organization and basic transitions in writing paragraphs. Upon completion, students should be able to demonstrate a basic understanding of grammar and ability to write English paragraphs using appropriate vocabulary, organization and transitions. This course is intended for non-native speakers of English.	
This course explores the continuum of children's communication development, including verbal and written language acquisition and other forms of communication. Topics include selection of literature and other media, the integration of literacy concepts throughout the classroom environment, inclusive practices and appropriate assessments. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate literacy experiences.		<b>ENGINEERING</b>	
<b>EDU 282 Early Childhood Lit</b>	3 0 0 3	<b>EGR 131 Intro to Electronics Tech</b>	1 2 0 2
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers the history, selection, and integration of literature and language in the early childhood		This course introduces the basic skills required for electrical/electronics technicians. Topics include soldering/desoldering, safety practices, test equipment, scientific calculators, AWG wire table, the resistor color code, electronic devices, problem solving and use of hand tools. Upon completion, students should be able to solder/desolder, operate test equipment, apply problem-solving techniques and use a scientific calculator.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>EGR 285    Design Project</b>	0 4 0 2	<b>ELC 114    Basic Wiring II</b>	2 6 0 4
Prerequisites: None	Corequisites: None	Prerequisites: ELC 113	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides the opportunity to design and construct an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, construction, testing and documentation of the approved project. Upon completion, students should be able to present and demonstrate operational projects.		This course provides additional instruction in the application of electrical tools, materials and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.	
<b>ELECTRICITY</b>			
<b>ELC 111    Intro to Electricity</b>	2 2 0 3	<b>ELC 115    Industrial Wiring</b>	2 6 0 4
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 2002*03	
This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.		This course covers layout, planning and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.	
<b>ELC 112    DC/AC Electricity</b>	3 6 0 5	<b>ELC 117    Motors and Controls</b>	2 6 0 4
Prerequisites: None	Corequisites: None	Prerequisites: ELC 111 or ELC 112 or ELC 131	
Effective Term: 1997*02		Corequisites: None	
This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify and analyze simple DC/AC circuits.		Effective Term: 1998*03	
		This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors and other control devices. Upon completion, students should be able to properly select, connect and troubleshoot motors and control circuits.	
<b>ELC 113    Basic Wiring I</b>	2 6 0 4	<b>ELC 118    National Electrical Code</b>	1 2 0 2
Prerequisites: None	Corequisites: None	Prerequisites: <b>ELC 113</b>	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety and electrical blueprint reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring and electrical distribution equipment associated with basic electrical installations.		This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials and other related topics. Upon completion, students should be able to effectively use the NEC.	
		<b>ELC 125    Diagrams and Schematics</b>	1 2 0 2
		Prerequisites: None	Corequisites: None
		Effective Term: 1997*02	
		This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>ELC 126 Electrical Computations</b>	2 2 0 3		
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course introduces the fundamental applications of mathematics which are used by an electrical/electronics technician. Topics include whole numbers, fractions, decimals, powers, roots, simple electrical formulas, and usage of a scientific calculator. Upon completion, students should be able to solve simple electrical mathematical problems.			
<b>ELC 127 Software for Technicians</b>	1 2 0 2		
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations, applications, and controls. Upon completion, students should be able to utilize a personal computer for electrical/electronics-related applications.			
<b>ELC 128 Intro to PLC</b>	2 3 0 3		
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.			
<b>ELC 131 DC/AC Circuit Analysis</b>	4 3 0 5		
Prerequisites: None	Corequisites: MAT 121		
Effective Term: 1997*02			
This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify and analyze DC/AC circuits; and properly use test equipment.			
<b>ELC 131A DC/AC Circuit Analysis Lab</b>	0 3 0 1		
Prerequisites: None	Corequisites: ELC 131		
Effective Term: 2002*01			
This course provides laboratory assignments as applied to fundamental principles of DC/AC electricity.			
<p>Emphasis is placed on measurements and evaluation of electrical components, devices and circuits. Upon completion, students should have gained hands-on experience by measuring voltage, current and opposition to current flow utilizing various meters and test equipment.</p> <h2>ELECTRONICS</h2> <p><b>ELN 112 Diesel Electronics System</b> 2 6 0 4</p> <p>Prerequisites: None      Corequisites: None</p> <p>Effective Term: 1997*02</p> <p>This course introduces electronic theory and applications as used in medium and heavy duty vehicles. Emphasis is placed on the basic function and operation of semiconductor and integrated circuits. Upon completion, students should be able to identify electronic components, explain their use and function, and use meters and flow charts to diagnose and repair systems.</p> <p><b>ELN 131 Electronic Devices</b> 3 3 0 4</p> <p>Prerequisites: None</p> <p>Corequisites: ELC 112 or ELC 131 or ELC 140</p> <p>Effective Term: 1998*03</p> <p>This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thermistors and related components. Emphasis is placed on analysis, selection, biasing and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify and troubleshoot discrete component circuits using appropriate techniques and test equipment.</p> <p><b>ELN 132 Linear IC Applications</b> 3 3 0 4</p> <p>Prerequisites: ELN 131 or BMT 113</p> <p>Corequisites: None</p> <p>Effective Term: 1997*02</p> <p>This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify and troubleshoot linear integrated circuits using appropriate techniques and test equipment.</p> <p><b>ELN 133 Digital Electronics</b> 3 3 0 4</p> <p>Prerequisites: <b>ELC 112 or ELC 131 or ELC 140</b></p> <p>Corequisites: None</p> <p>Effective Term: 1998*03</p> <p>This course covers combinational and sequential logic</p>			

Course Title	Hours Per Week Cl Lb Cn Cr				Course Title	Hours Per Week Cl Lb Cn Cr			
circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AD/DA conversion and other related topics. Upon completion, students should be able to construct, analyze, verify and troubleshoot digital circuits using appropriate techniques and test equipment.					and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.				
<b>ELN 229 Industrial Electronics</b>	2	4	0	4	<b>ELN 237 Local Area Networks</b>	2	3	0	3
Prerequisites: ELC 112 or ELC 131 or ELC 140					Prerequisites: CIS 110 or CIS 111 or CET 111 or ELC 127				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 2002*03				
This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.					This course introduces the fundamentals of local area networks and their operation in business and computer environments. Topics include the characteristics of network topologies, system hardware (repeaters, bridges, routers, gateways), system configuration and installation and administration of the LAN. Upon completion, students should be able to install, maintain and manage a local area network. <i>This course is limited to students currently admitted to the Computer Engineering Technology or Electronics Engineering Technology programs.</i>				
<b>ELN 231 Industrial Controls</b>	2	3	0	3	<b>ELN 238 Advanced LANs</b>	2	3	0	3
Prerequisites: ELC 112 or ELC 131 or ELC 140					Prerequisites: ELN 237 Corequisites: None				
Corequisites: None					Effective Term: 1997*02				
Effective Term: 1997*02					This course covers advanced concepts, tools, and techniques associated with servers, workstations and overall local area network performance. Topics include network security and configuration, system performance and optimization, communication protocols and packet formats, troubleshooting techniques, multi-platform integration and other related topics. Upon completion, students should be able to use advanced techniques to install, manage, and troubleshoot networks and optimize server and workstation performance.				
This course introduces the fundamental concepts of solid-state control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems and other related topics. Upon completion, students should be able to interpret ladder diagrams and demonstrate an understanding of electromechanical and electronic control of rotating machinery.									
<b>ELN 232 Intro to Microprocessors</b>	3	3	0	4	<b>ELN 260 Prog Logic Controllers</b>	3	3	0	4
Prerequisites: ELN 133 Corequisites: None					Prerequisites: <b>ELN 229</b> Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts and other related topics. Upon completion, students should be able to interpret, analyze, verify and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.					This course provides a detailed study of PCL applications, with a focus on design of industrial control circuits using the PLC. Topics include PLC components, memory organization, math instructions, programming documentation, input/output devices and applying PLCs in the design of industrial control systems. Upon completion, students should be able to design and program a PLC system to perform a wide variety of industrial control functions. <i>This course is limited to students currently admitted to the Electronics Engineering Technology program.</i>				
<b>ELN 233 Microprocessor Systems</b>	3	3	0	4					
Prerequisites: ELN 232 Corequisites: None									
Effective Term: 1997*02									
This course covers the application and design of microprocessor control systems. Topics include control									

Course Title	Hours Per Week				Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr	
<b>EMERGENCY MEDICAL</b>										
<b>EMS 110 EMT-Basic</b>		5	6	0	7	<b>EMS 131 Adv Airway Management</b>	1	2	0	2
Prerequisites: None						Prerequisites: EMS 110				
Corequisites: None						Corequisites: EMS 120 and EMS 130				
Effective Term: 2002*03						Effective Term: 1997*02				
This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT-Basic certification.										
<b>EMS 120 Intermediate Interventions</b>	2	3	0	3		<b>EMS 140 Rescue Scene Management</b>	1	3	0	2
Prerequisites: EMS 110						Prerequisites: None				
Corequisites: EMS 121 or EMS 122 and EMS 130 and EMS 131						Corequisites: None				
Effective Term: 2002*03						Effective Term: 2002*03				
This course is designed to provide the necessary information for interventions appropriate to the EMT-Intermediate and is required for intermediate certification. Topics include automated external defibrillation, basic cardiac electrophysiology, intravenous therapy, venipuncture, acid-base balance, and fluids and electrolytes. Upon completion, students should be able to properly establish an IV line, obtain venous blood, utilize AEDs and correctly interpret arterial blood gases.										
<b>EMS 121 EMS Clinical Practicum I</b>	0	0	6	2		<b>EMS 150 Emerg Vehicles &amp; EMS Comm</b>	1	3	0	2
Prerequisites: EMS 110						Prerequisites: None				
Corequisites: EMS 120, EMS 130 and EMS 131						Corequisites: None				
Effective Term: 2002*03						Effective Term: 1998*03				
This course is the initial hospital and field internship and is required for intermediate and paramedic certification. Emphasis is placed on intermediate-level care. Upon completion, students should be able to demonstrate competence with intermediate-level skills.										
<b>EMS 130 Pharmacology I for EMS</b>	1	3	0	2		<b>EMS 210 Adv. Patient Assessment</b>	1	3	0	2
Prerequisites: EMS 110						Prerequisites: EMS 120, EMS 121, EMS 122, EMS 130 or EMS 131				
Corequisites: EMS 120 and EMS 131						Corequisites: None				
Effective Term: 2000*03						Effective Term: 2000*03				
This course introduces the fundamental principles of pharmacology and medication administration and is required for intermediate and paramedic certification. Topics include terminology, pharmacokinetics, pharmacodynamics, weights, measures, drug calculations, legislation and administration routes. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications and demonstrate general knowledge of pharmacology.										
This course is designed to provide advanced airway management techniques and is required for intermediate and paramedic certification. Topics include respiratory anatomy and physiology, airway, ventilation, adjuncts, surgical intervention and rapid sequence intubation. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.										
This course introduces rescue scene management and is required for paramedic certification. Topics include response to hazardous material conditions, medical incident command and extrication of patients from a variety of situations. Upon completion, students should be able to recognize and manage rescue operations based upon initial and follow-up scene assessment.										
This course examines the principles governing emergency vehicles, maintenance of emergency vehicles, and EMS communication equipment and is required for paramedic certification. Topics include applicable motor vehicle laws affecting emergency vehicle operation, defensive driving, collision avoidance techniques, communication systems and information management systems. Upon completion, students should have a basic knowledge of emergency vehicles, maintenance and communication needs.										
This course covers advanced patient assessment techniques and is required for paramedic certification. Topics include initial assessment, medical-trauma history, field impression, complete physical exam process, on-going assessment and documentation skills. Upon completion, students should be able to utilize basic communication skills and record and report collected patient data.										

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>EMS 220 Cardiology</b>	2 6 0 4		
Prerequisites: EMS 120, EMS 130 and EMS 131		required for paramedic certification. Topics include behavioral emergencies, abuse, assault, challenged patients, personal well-being, home care and psychotherapeutic pharmacology. Upon completion, students should be able to recognize and manage frequently encountered special needs patients.	
Corequisites: None			
Effective Term: 2000*03			
This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, rhythm interpretation, cardiac pharmacology and patient treatment. Upon completion, students should be able to certify at the Advanced Cardiac Life Support Provider level utilizing American Heart Association guidelines.		<b>EMS 242 EMS Hospital Clinical IV</b>	0 0 6 2
		Prerequisites: EMS 232 and COE 131 or EMS 231	
		Corequisites: COE 211	
		Effective Term: 1997*02	
		This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic.	
<b>EMS 222 EMS Hospital Clinical II</b>	0 0 6 2		
Prerequisites: EMS 121, or EMS 122 and COE 111			
Corequisites: COE 121			
Effective Term: 1997*02			
This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.		<b>EMS 250 Advanced Medical Emergencies</b>	2 3 0 3
		Prerequisites: EMS 120, EMS 121, EMS 130 and EMS 131 or EMS 122	
		Corequisites: None	
		Effective Term: 2000*03	
		This course provides in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include pulmonology, neurology, endocrinology, anaphylaxis, gastroenterology, toxicology, and environmental emergencies integrating case presentation and emphasizing pharmacotherapeutics. Upon completion, students should be able to recognize and manage frequently encountered medical conditions based upon initial patient impression.	
<b>EMS 232 EMS Hospital Clinical III</b>	0 0 6 2		
Prerequisites: EMS 221, or EMS 222 and COE 121			
Corequisites: COE 131			
Effective Term: 1997*02			
This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.		<b>EMS 260 Advanced Trauma Emergencies</b>	1 3 0 2
		Prerequisites: EMS 120, EMS 121, EMS 130 and EMS 131 or EMS 122	
		Corequisites: None	
		Effective Term: 1997*02	
		This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include hemorrhage control, shock, burns, and trauma to head, spine, soft tissue, thoracic, abdominal and musculoskeletal areas with case presentations utilized for special problems situations. Upon completion, students should be able to recognize and manage trauma situations based upon patient impressions and should meet requirements of BTLS or PHTLS courses.	
<b>EMS 235 EMS Management</b>	2 0 0 2		
Prerequisites: None			
Corequisites: None			
Effective Term: 1998*03			
This course stresses the principles of managing a modern emergency medical service system. Topics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.			
<b>EMS 240 Special Needs Patients</b>	1 2 0 2		
Prerequisites: EMS 120, EMS 121 or EMS 122, EMS 130, and EMS 131			
Corequisites: None			
Effective Term: 2002*03			
This course includes concepts of crisis intervention and techniques of dealing with special needs patients and is			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>EMS 270 Life Span Emergencies</b> 2 2 0 3		developmental reading and writing prerequisite for ENG 111 or ENG 111A.	
Prerequisites: EMS 120, EMS 130 and EMS 131			
Corequisites: None		<b>ENG 070 Basic Language Skills</b> 2 2 0 3	
Effective Term: 1997*02		Prerequisites: None Corequisites: None	
This course, required for paramedic certification, covers medial/ethical/legal issues and the spectrum of age- specific emergencies from conception through death. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age- specific emergencies and certify at the Pediatric Advanced Life Support Provider level.		Effective Term: 2000*03	
		This course introduces the fundamentals of standard written English. Emphasis is placed on effective word choice, recognition of sentences and sentence parts and basic usage. Upon completion, students should be able to generate sentences that clearly express ideas. This course does not satisfy the developmental reading and writing prerequisite for ENG 111 or ENG 111A.	
<b>EMS 280 EMS Bridging Course</b> 2 2 0 3		<b>ENG 080 Writing Foundations</b> 3 2 0 4	
Prerequisites: None Corequisites: None		Prerequisites: ENG 070 or ENG 075 or acceptable test scores	
Effective Term: 1998*03		Corequisites: None	
This course is designed to bridge the knowledge gained in a continuing education paramedic program with the knowledge gained in an EMS curriculum program. Topics include patient assessment, documentation, twelve-lead ECG analysis, thrombolytic agents, cardiac pacing and advanced pharmacology. Upon completion, students should be able to perform advanced patient assessment documentation using the problem-oriented medical record format and manage complicated patients.		Effective Term: 1997*02	
		This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, reflecting standard usage and mechanics in structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph. This course does not satisfy the developmental reading and writing prerequisite for ENG 111 or ENG 111A.	
<b>EMS 285 EMS Capstone</b> 1 3 0 2		<b>ENG 090 Composition Strategies</b> 3 0 0 3	
Prerequisites: EMS 220, EMS 250 and EMS 260		Prerequisites: ENG 080 or ENG 085 or acceptable test scores	
Corequisites: None		Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events.		This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay. This course satisfies the developmental requirement for ENG 111 and ENG 111A.	
<b>ENGLISH</b>		<b>ENG 090A Comp Strategies Lab</b> 0 2 0 1	
<b>ENG 060 Speaking English Well</b> 2 0 0 2		Prerequisites: ENG 080 or ENG 085	
Prerequisites: None Corequisites: None		Corequisites: ENG 090	
Effective Term: 2000*03		Effective Term: 1997*02	
This course is designed to improve oral communication skills. Emphasis is placed on practice using fluent standard spoken English. Upon completion, students should be able to speak appropriately in a variety of situations. This course does not satisfy the		This writing lab is designed to practice the skills introduced in ENG 090. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.	

Course Title	Hours Per Week Cl Lb Cn Gr				Course Title	Hours Per Week Cl Lb Cn Gr			
<b>ENG 101 Applied Communications I</b>	3	0	0	3	and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.				
Prerequisites: None	Corequisites: None				<b>ENG 115 Oral Communication</b>	3	0	0	3
Effective Term: 1997*02					Prerequisites: None	Corequisites: None			
This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. This is a diploma level course.					Effective Term: 1997*02				
<b>ENG 111* Expository Writing</b>	3	0	0	3	This course introduces the basic principles of oral communication in both small group and public settings. Emphasis is placed on the components of the communication process, group decision-making and public address. Upon completion, students should be able to demonstrate the principles of effective oral communication in small group and public settings.				
Prerequisites: ENG 090 and RED 090 or ENG 095					<b>ENG 125* Creative Writing I</b>	3	0	0	3
or acceptable test scores					Prerequisites: ENG 111	Corequisites: None			
Corequisites: None					Effective Term: 2001*03				
Effective Term: 1997*02					This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.				
This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. The course will include a unit introducing the research process.					<b>ENG 126* Creative Writing II</b>	3	0	0	3
<b>ENG 112* Argument-Based Research</b>	3	0	0	3	Prerequisites: ENG 125	Corequisites: None			
Prerequisites: ENG 111	Corequisites: None				Effective Term: 1997*02				
Effective Term: 1997*02					This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.				
This course, the second in a series of two, introduces research techniques, documentation styles and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret and synthesize information from primary and secondary sources using standard research format and style. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.					<b>ENG 131 Introduction to Literature</b>	3	0	0	3
<b>ENG 114* Prof Research &amp; Reporting</b>	3	0	0	3	Prerequisites: ENG 111				
Prerequisites: ENG 111	Corequisites: None				Corequisites: ENG 112, ENG 113, or ENG 114				
Effective Term: 1997*02					Effective Term: 1997*02				
This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral					This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure and interpretation. Upon completion, students should be able to analyze and respond to literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.				

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>ENG 231* American Literature I</b>	3 0 0 3	analyze and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.	
Prerequisites: ENG 112, ENG 113, or ENG 114			
Corequisites: None			
Effective Term: 1997*02			
This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.			
<b>ENG 232* American Literature II</b>	3 0 0 3	<b>ENG 261* World Literature I</b>	3 0 0 3
Prerequisites: ENG 112, ENG 113, or ENG 114		Prerequisites: ENG 112, ENG 113, or ENG 114	
Corequisites: None		Corequisites: None	
Effective Term: 1997*02		Effective Term: 1197*02	
This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry and drama. Upon completion, students should be able to interpret, analyze and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.		This course introduces selected works from the Pacific, Asia, Africa, Europe and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry and drama. Upon completion, students should be able to interpret, analyze and respond to selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.	
<b>ENG 241* British Literature I</b>	3 0 0 3	<b>ENG 262* World Literature II</b>	3 0 0 3
Prerequisites: ENG 112, ENG 113, or ENG 114		Prerequisites: ENG 112, ENG 113, or ENG 114	
Corequisites: None		Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry and drama. Upon completion, students should be able to interpret, analyze and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.		This course introduces selected works from the Pacific, Asia, Africa, Europe and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry and drama. Upon completion, students should be able to interpret, analyze and respond to selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.	
<b>ENG 242* British Literature II</b>	3 0 0 3	<b>ENG 273* African-American Literature</b>	3 0 0 3
Prerequisites: ENG 112, ENG 113, or ENG 114		Prerequisites: ENG 112, ENG 113, or ENG 114	
Corequisites: None		Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry and drama. Upon completion, students should be able to interpret,		This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions and backgrounds of the authors. Upon completion, students should be able to interpret, analyze and respond to selected texts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>FIRE PROTECTION</b>									
<b>FIP 120 Intro to Fire Protection</b>	3	0	0	3	<b>FIP 136 Inspections &amp; Codes</b>	3	0	0	3
Prerequisites: None				Corequisites: None	Prerequisites: None				Corequisites: None
Effective Term: 2004*03					Effective Term: 2002*03				
This course provides an overview of the history, development, methods, systems and regulations as they apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum and other related topics. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.					This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report, meeting NFPA 1021.				
<b>FIP 124 Fire Prevention &amp; Public Ed</b>	3	0	0	3	<b>FIP 140 Industrial Fire Protect</b>	3	0	0	3
Prerequisites: None				Corequisites: None	Prerequisites: None				Corequisites: None
Effective Term: 2002*03					Effective Term: 2004*03				
This course introduces fire prevention concepts as they relate to community and industrial operations. Topics include the development and maintenance of fire prevention programs, educational programs and inspection programs. Upon completion, students should be able to research, develop and present a fire safety program to a citizens or industrial group, meeting NFPA 1021.					This course covers fire protection systems in industrial facilities. Topics include applicable health and safety standards, insurance carrier regulations, other regulatory agencies, hazards of local industries, fire brigade operation and loss prevention programs. Upon completion, students should be able to prepare a procedure to plan, organize and evaluate an industrial facility's fire protection, meeting NFPA 1021.				
<b>FIP 128 Detection &amp; Investigation</b>	3	0	0	3	<b>FIP 144 Sprinklers &amp; Auto Alarms</b>	2	2	0	3
Prerequisites: None				Corequisites: None	Prerequisites: None				Corequisites: None
Effective Term: 2002*03					Effective Term: 1997*02				
This course covers procedures for determining the origin and cause of accidental and incendiary fires. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony and documentation of the fire scene. Upon completion, students should be able to conduct a competent fire investigation and present those findings to appropriate officials or equivalent, meeting NFPA 1021.					This course introduces various types of automatic sprinklers, standpipes and fire alarm systems. Topics include wet or dry systems, testing and maintenance, water supply requirements, fire detection and alarm systems and other related topics. Upon completion, students should be able to demonstrate a working knowledge of various sprinkler and alarm systems and required inspection and maintenance.				
<b>FIP 132 Building Construction</b>	3	0	0	3	<b>FIP 148 Fixed &amp; Port Exting Sys</b>	2	2	0	3
Prerequisites: None				Corequisites: None	Prerequisites: None				Corequisites: None
Effective Term: 2002*03					Effective Term: 1997*02				
This course covers the principles and practices related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse and other related topics. Upon completion, students should be able to understand and recognize various types of construction as related to fire conditions, meeting NFPA 1021.					This course provides a study of various types of fixed and portable extinguishing systems, their operation, installation and maintenance. Topics include applications, testing and maintenance of Halon, carbon dioxide, dry chemical and special extinguishing agents in fixed and portable systems. Upon completion, students should be able to identify various types of fixed and portable systems, including their proper application and maintenance.				

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>FIP 152 Fire Protection Law</b>	3	0	0	3	<b>FIP 180 Wildland Fire Behavior</b>	3	0	0	3
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 2004*03					Effective Term: 2000*03				
This course covers fire protection law. Topics include torts, legal terms, contracts, liability, review of case histories and other related topics. Upon completion, students should be able to discuss laws, codes and ordinances as they relate to fire protection.					This course covers the principles of wildland fire behavior and meteorology. Emphasis is placed on fire calculations, fuels and related weather effects. Upon completion, students should be able to demonstrate and apply fire behavior theories through written and performance evaluations.				
<b>FIP 160 Fire Protection/Elec</b>	2	0	0	2	<b>FIP 188 Intro to Wildland Fires</b>	3	2	0	4
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers the methods and means of electrical installations and uses as related to fire. Topics include basic electrical theories, wiring methods, electrical components and circuitry and an introduction to the National Electrical Code. Upon completion, students should be able to demonstrate a basic knowledge of electricity, including its uses, characteristics and hazards.					This course introduces basic wildland fire suppression functions. Emphasis is placed on the operation of tools, equipment, aircraft and basic fire suppression methods. Upon completion, students should be able to understand theories in wildland fire suppression and demonstrate them through written and performance evaluations.				
<b>FIP 160A Fire Protection/Elec Lab</b>	0	2	0	1	<b>FIP 220 Fire Fighting Strategies</b>	3	0	0	3
Prerequisites: None	Corequisites: FIP 160				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 2002*03				
This course provides practical applications to support FIP 160. Topics include switching devices, basic circuits, electrical distribution and other related topics. Upon completion, students should be able to demonstrate knowledge of basic electrical equipment and hazards as related to fire protection.					This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. Topics include incident management, fire-ground tactics and strategies, incident safety and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system related to operations involving various emergencies in fire/non-fire situations, meeting NFPA 1021.				
<b>FIP 164 OSHA Standards</b>	3	0	0	3	<b>FIP 221 Adv Fire Fighting Strat</b>	3	0	0	3
Prerequisites: None	Corequisites: None				Prerequisites: FIP 220	Corequisites: None			
Effective Term: 2004*03					Effective Term: 1997*02				
This course covers public and private sector OSHA work site requirements. Emphasis is placed on accident prevention and reporting, personal safety, machine operation and hazardous material handling. Upon completion, students should be able to analyze and interpret specific OSHA regulations and write workplace policies designed to achieve compliance.					This course covers command-level operations for multi-company/agency operations involving fire and non-fire emergencies. Topics include advanced ICS, advanced incident analysis, command-level fire operations, and control of both man made and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the mitigation of emergencies at the level of overall scene command.				
<b>FIP 176 HazMat: Operations</b>	4	0	0	4	<b>FIP 224 Instructional Methodology</b>	4	0	0	4
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 2002*03				
This course is designed to increase first responder awareness of the type, nature, physiological effects of and defensive techniques for mitigation of HazMat incidents. Topics include recognition, identification, regulations and standards, zoning, resource usage, defensive operations and other related topics. Upon completion, students should be able to recognize and identify the presence of hazardous materials and use proper defensive techniques for incident mitigation.					This course covers the knowledge, skills and abilities needed to train others in fire service operations. Topics include planning, presenting, and evaluating lesson plans, learning styles, use of media, communication and				

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
other related topics. Upon completion, students should be able to meet all requirements of NFPA 1041 and NFPA 1021.					<b>FIP 236 Emergency Management</b>	3	0	0	3
					Prerequisites: None				Corequisites: None
					Effective Term: 2004*03				
<b>FIP 228 Local Govt Finance</b>	3	0	0	3	This course covers the four phases of emergency management, mitigation, preparedness, response and recovery. Topics include organizing for emergency management, coordinating for community resources, public sector liability and the roles of government agencies at all levels. Upon completion, students should be able to demonstrate an understanding of comprehensive emergency management and the integrated emergency management system.				
Prerequisites: None									
Corequisites: None									
Effective Term: 2004*03									
This course introduces local governmental financial principles and practices. Topics include budget preparation and justification, revenue policies, statutory requirements, taxation, audits and the economic climate. Upon completion, students should be able to comprehend the importance of finance as it applies to the operation of the department.									
					<b>FIP 240 Fire Service Supervision</b>	3	0	0	3
					Prerequisites: None				Corequisites: None
					Effective Term: 2005*03				
<b>FIP 230 Chem of Hazardous Mat I</b>	5	0	0	5	This course covers supervisory skills and practices in the fire protection field. Topics include the supervisor's job, supervision skills, the changing work environment, managing change, organizing for results, discipline and grievances, and safety. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of the effective fire service supervisor, meeting elements of NFPA 1021.				
Prerequisites: None									
Corequisites: None									
Effective Term: 1997*02									
This course covers the evaluation of hazardous materials. Topics include use of the periodic table, hydrocarbon derivatives, placards and labels, parameters of combustion and spill and leak mitigation. Upon completion, students should be able to demonstrate knowledge of the chemical behavior of hazardous materials.					<b>FIP 244 Fire Protection Project</b>	3	0	0	3
					Prerequisites: None				Corequisites: None
					Effective Term: 1998*03				
<b>FIP 231 Chem of Hazardous Mat II</b>	4	2	0	5	This course provides an opportunity to apply knowledge covered in previous courses to employment situations that the fire protection professional will encounter. Emphasis is placed on the development of comprehensive and professional practices. Upon completion, students should be able to demonstrate knowledge of the fire protection service through written and performance evaluations.				
Prerequisites: FIP 230									
Corequisites: None									
Effective Term: 1997*02					<b>FIP 256 Munic Public Relations</b>	3	0	0	3
This course covers hazardous materials characterization, properties, location, handling and response guidelines, hazard survey principles and other related topics. Topics include radiation hazards, instruments, inspections and detection of the presence of hazardous materials in industrial/commercial occupancies. Upon completion, students should be able to inspect chemical/radioactive sites and use on-site visits to gasoline and/or LPG storage facilities/chemical plants to develop a pre-plan.					Prerequisites: None				Corequisites: None
					Effective Term: 2004*03				
<b>FIP 232 Hydraulics &amp; Water Dist</b>	2	2	0	3	This course is a general survey of municipal public relations and their effect on the governmental process. Topics include principles of public relations, press releases, press conferences, public information officers, image surveys and the effects of perceived service on fire protection delivery. Upon completion, students should be able to manage the public relations functions of a fire service organization, which meet elements of NFPA 1021 for Fire Officer I and II.				
Prerequisites: MAT 115									
Corequisites: None									
Effective Term: 1997*02									
This course covers the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains and other devices. Emphasis is placed on supply and delivery systems, fire flow testing, hydraulics calculations and other related topics. Upon completion, students should be able to perform hydraulic calculations, conduct water availability tests and demonstrate knowledge of water distribution systems.									

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr

**FIP 264 Flame Prop & Mat Rating** 1 4 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers the role of interior finishes in fires, smoke obscuration and density, flame spread, pyrolysis and other related topics. Emphasis is placed on testing equipment which includes Rack Impingement, Bench Furnace and the two-foot tunnel. Upon completion, students should be able to understand the operation of the testing equipment and compile a reference notebook.

**FIP 276 Managing Fire Services** 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 2002\*03

This course provides an overview of fire department operative services. Topics include finance, staffing, equipment, code enforcement, management information, specialized services, legal issues, planning and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles, meeting NFPA 1021.

## FRENCH

**FRE 111\* Elementary French I** 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on this development of basic listening, speaking, reading and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

**FRE 112\* Elementary French II** 3 0 0 3

Prerequisites: FRE 111 Corequisites: None

Effective Term: 1997\*02

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general

education core requirement in humanities/fine arts.

## FILM AND VIDEO

**FVP 111 Intro. to Film & Video** 2 3 0 3

Prerequisites: None Corequisites: None

Effective Term: 1999\*03

This course is an overview of the film making process from conceptualization to execution and examines film genres in the context of history, theory, creativity and commerce. Topics include the history of film and video in the US, technical terminology, relationships between various job categories and the language of film. Upon completion, student should be able to demonstrate a film vocabulary and knowledge of working conditions in the film/video production field.

**FVP 112 Art Dept Operations I** 1 4 0 3

Prerequisites: None Corequisites: None

Effective Term: 1999\*03

This course introduces practical fabrication skills for wood and other materials required to build both props and sets from blueprints, photographs, or sketches. Emphasis is placed on the safe use of hand and power tools and the skills required for collaborative efforts in set and prop construction. Upon completion, students should be able to demonstrate a working knowledge of the equipment and skills necessary to assist in construction sets and props.

**FVP 113 Grip and Electrical I** 1 4 0 3

Prerequisites: None Corequisites: None

Effective Term: 1999\*03

This course covers various grip/support packages used in different environments for studio and location. Topics include lighting units, hardware, stands, color media and electrical theory with emphasis on safety. Upon completion, students should be able to execute basic grip and electrical directions given by the key grip and/or gaffer.

**FVP 114 Camera & Lighting I** 2 3 0 3

Prerequisites: None Corequisites: None

Effective Term: 1999\*03

This course covers the basic principles of video camera and recorder operations in professional formats, crew protocol and safety and basic lighting theory and application. Emphasis is placed on terminology, the characteristics of light, basic lighting procedures and proper procedures of field recording with video equipment. Upon completion, students should be able to demonstrate an understanding of the basic technical terms of camera operation, video recording and lighting equipment.

Course Title		Hours Per Week				Course Title		Hours Per Week					
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr		
<b>FVP 115</b>	<b>Camera &amp; Lighting II</b>	2	3	0	3	troubleshoot telecommunications systems in various institutional environments.							
Prerequisites: FVP 114		Corequisites: None				<b>FVP 130**</b>		<b>Grip and Electrical II</b>		1	4	0	3
Effective Term: 1999*03						Prerequisites: FVP 113		Corequisites: None					
This course offers advanced principles of video camera and recorder operations and introduces students to film formats and equipment as well as advanced lighting theory applications. Emphasis is placed on terminology, lighting for effect and color correction. Upon completion, students should be able to demonstrate an understanding of camera terms and equipment, lighting theory and applications, and assist on studio and location shoots.						Effective Term: 1999*03		This course provides a more in depth coverage of grip/support packages used in studio work and on location. Topics include advanced coverage of lighting, color media, and camera dollies, rigging and electrical distribution with emphasis on safety issues. Upon completion, students should be able to execute grip and electrical directions given by the key grip, gaffer, cinematographer and/or director of photography.					
<b>FVP 116</b>	<b>Sound Operations</b>	2	3	0	3	<b>FVP 211**</b>		<b>Continuity and Locations</b>		2	3	0	3
Prerequisites: None		Corequisites: None				Prerequisites: FVP 111, FVP 115, FVP 116 and FVP 120		Corequisites: None					
Effective Term: 1999*03						Effective Term: 1999*03		This course introduces students to camera and script continuity as well as the necessary skills and technical vocabulary associated with location scouting. Emphasis is placed on the technical terms, protocol and industry-standard forms, note taking, as well as still photography, location contracts and forms. Upon completion, students should be able to assist above-the-line industry personnel prior to and during production as well as assist in all aspects of selecting and securing suitable shooting sites.					
This course provides an overview of sound theory, methods, and technologies for location and studio recording and hands-on work in location sound gathering. Emphasis is placed on terminology, protocol, cabling, trouble-shooting, mixing skills and safety aspects associated with hands-on work in sound gathering. Upon completion, students should be able to demonstrate an understanding of sound theory and terminology and assist professionals in sound gathering in both film and audio production.						<b>FVP 212**</b>		<b>Production Techniques I</b>		1	12	0	5
<b>FVP 117**</b>	<b>Make-up &amp; Wardrobe</b>	2	3	0	3	Prerequisites: None		Corequisites: None					
Prerequisites: None		Corequisites: None				Effective Term: 2006*01		This course provides experience working in a variety of crew positions with both student and professional productions and covers advanced film production concepts. Emphasis is placed on successful interaction with other advanced students and/or professionals as well as competency in advanced film production concepts. Upon completion, students should be able to demonstrate professional skills needed to pursue careers in the film and video industry.					
Effective Term: 1999*03						<b>FVP 213**</b>		<b>Production Techniques II</b>		1	12	0	5
This course covers talent presentation for camera including period and genre make-up styles, materials and methods of fabrication. Emphasis is placed on understanding the wardrobe department, make-up application, prosthetics and special effects make-up with emphasis on safety, hygiene, durability and continuity. Upon completion, students should understand the functions of the wardrobe department and demonstrate competence in the use of various make-up applications.						Prerequisites: FVP 212		Corequisites: None					
<b>FVP 118**</b>	<b>AV for Institutions</b>	2	3	0	3	Effective Term: 1999*03		This course provides experience working in a variety of crew positions with both student and professional productions and covers advanced film production					
Prerequisites: None		Corequisites: None											
Effective Term: 1999*03													
This course covers educational and business applications of video, audio and computers and the operation of various telecommunications equipment. Emphasis is placed on safe operation and handling of different audio and video communication systems and correct design of systems and space. Upon completion, students should be able to set up, operate and													

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
concepts. Emphasis is placed on successful interaction with other advanced students and/or professionals as well as competency in advanced film production concepts. Upon completion, students should be able to demonstrate professional skills needed to pursue careers in key positions in the film and video industry.		digital manipulation of audio and video materials. Emphasis is placed on technical terms used in multimedia work and integration of sound, video, graphics and text into a single production. Upon completion, students should be able to define technical terms in multimedia work and work with a variety of computer hardware and software.	
<b>FVP 215** Production Management</b> 2 3 0 3		<b>FVP 238** Software Apps for FVP</b> 2 3 0 3	
Prerequisites: None Corequisites: FVP 238		Prerequisites: None Corequisites: None	
Effective Term: 1999*03		Effective Term: 1999*03	
This course emphasizes the activity of script breakdown in pre-production as well as the activities of the production office in both the production and post-production stages. Emphasis is placed on procedures, use of industry standard forms and software, as well as the functions and practices of the production office. Upon completion, students should be able to demonstrate the people and technical skills necessary to assist above-the-line professionals in all types of film and video production.		This course introduces the use of industry standard computer software unique to the motion picture industry using personal computers. Emphasis is placed on hands-on work with budgeting and scheduling software and in facilitating the relationship between the technical crew and the script. Upon completion, students should be able to assist with script breakdown for budgeting and scheduling and work with that information in computer-based formats.	
<b>FVP 220** Editing I</b> 2 3 0 3		<b>GEOGRAPHY</b>	
Prerequisites: None Corequisites: None		<b>GEO 111* World Regional Geography</b> 3 0 0 3	
Effective Term: 2006*01		Prerequisites: None Corequisites: None	
This course covers film and video editing from traditional methods to digital non-linear systems and basic film lab and transfer facility procedures. Topics include terminology, technologies, aesthetics, basic picture-only editing skills; and the editor's role augmented by hands-on experience. Upon completion, students should be able to use editing equipment and basic digitizing, logging and picture only editing skills.		Effective Term: 1997*02	
<b>FVP 221** Editing II</b> 2 3 0 3		This course introduces the regional concept, which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.	
Prerequisites: FVP 220 Corequisites: None		<b>GEO 112* Cultural Geography</b> 3 0 0 3	
Effective Term: 1999*03		Prerequisites: None Corequisites: None	
This course covers editing in the digital environment, starting from the camera negative through the transfer, the non-linear digital edit and going back to negative matching. Topics include terminology, technologies, aesthetics, advanced sound and picture editing skills and the editor's role augmented by hands-on experience. Upon completion, students should be able to demonstrate proficiency in using editing equipment and sound and picture editing skills.		Effective Term: 1997*02	
<b>FVP 227** Multimedia Production</b> 2 3 0 3		This course is designed to explore the diversity of human cultures and to describe their shared characteristics. Emphasis is placed on the characteristics, distribution and complexity of earth's cultural patterns. Upon completion, students should be able to demonstrate an understanding of the differences and similarities in human cultural groups. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.	
Prerequisites: None Corequisites: None			
Effective Term: 1997*02			
This course covers technical terms used in the multimedia industry and introduces skills related to			

Course Title	Hours Per Week	Course Title	Hours Per Week
	Cl Lb Cn Cr		Cl Lb Cn Cr

## GRAPHIC ARTS

### GRA 110 Graphic Arts Orientation 2 0 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers the history, development and commercial applications of the major printing processes. Topics include offset lithography, screen printing, intaglio, relief printing and emerging technologies. Upon completion, students should be able to demonstrate an understanding of the major characteristics, advantages and disadvantages of each process.

### GRA 112 Graphics Problem Solving 2 0 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers computations used in graphic arts production. Topics include measurement systems, ratios and scaling and paper-cutting calculations. Upon completion, students should be able to apply mathematical skills to problem solving in graphic arts and imaging production.

### GRA 121 Graphic Arts I 2 4 0 4

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces terminology, tools and materials, procedures and equipment used in graphic arts production. Topics include copy preparation and pre-press production relative to printing. Upon completion, students should be able to demonstrate an understanding of graphic arts production.

### GRA 130 Print Career Exploration 1 0 0 1

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces employment opportunities and requirements in the graphic arts and imaging technology fields. Topics include career choices, operations, graphic arts businesses and related business issues. Upon completion, students should be able to demonstrate an understanding of the graphic arts field and consider an appropriate career specialization.

### GRA 151 Computer Graphics I 1 3 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces the use of hardware and software for production and design in graphic arts. Topics include graphical user interface and current industry uses such as design, layout, typography, illustration and imaging for production. Upon completion, students

should be able to understand and use the computer as a fundamental design and production tool. *This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.*

### GRA 152 Computer Graphics II 1 3 0 2

Prerequisites: GRA 151 Corequisites: None

Effective Term: 1997\*02

This course covers advanced design and layout concepts utilizing illustration, page layout and imaging software in graphic arts. Emphasis is placed on enhancing and developing the skills that were introduced in GRA 151. Upon completion, students should be able to select and utilize appropriate software for design and layout solutions. *This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.*

### GRA 153 Computer Graphics III 1 3 0 2

Prerequisites: GRA 152 Corequisites: None

Effective Term: 1997\*02

This course is a continuation of GRA 152. Emphasis is placed on advanced computer graphics hardware and software applications. Upon completion, students should be able to demonstrate competence in selection and utilization of appropriate software for specialized applications. *This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.*

### GRA 154 Computer Graphics IV 1 3 0 2

Prerequisites: GRA 153 Corequisites: None

Effective Term: 1997\*02

This course is a continuation of GRA 153. Emphasis is placed on advanced techniques using a variety of hardware and software applications to produce complex projects. Upon completion, students should be able to use electronic document production tools. *This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.*

### GRA 161 Computer Graphics Apps I 0 3 0 1

Prerequisites: None Corequisites: GRA 151

Effective Term: 1997\*02

This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce simple graphic arts projects. Upon completion, students should be able to use the computer as a graphic arts production tool. *This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.*

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>GRA 162 Computer Graphics Apps II</b> 0 3 0 1		<i>admitted to the Graphic Arts and Imaging Technology program.</i>	
Prerequisites: None	Corequisites: GRA 152		
Effective Term: 1997*02			
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce intermediate graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool. <i>This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.</i>			
<b>GRA 163 Computer Graphics Apps III</b> 0 3 0 1		<b>GRA 222 Graphic Arts III</b> 2 4 0 4	
Prerequisites: None	Corequisites: GRA 153	Prerequisites: GRA 221 and GRA 152	
Effective Term: 1997*02		Corequisites: None	
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce advanced graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool. <i>This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.</i>		Effective Term: 1997*02	
		This course is a continuation of GRA 221. Topics include advanced electronic pre-press, press operation and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of advanced graphic arts production. <i>This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.</i>	
<b>GRA 164 Computer Graphics Apps IV</b> 0 3 0 1		<b>GRA 255 Image Manipulation I</b> 1 3 0 2	
Prerequisites: None	Corequisites: GRA 154	Prerequisites: GRA 151 or GRD 151	
Effective Term: 1997*02		Corequisites: None	
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce professional quality graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool. <i>This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.</i>		Effective Term: 1997*02	
		This course covers applications associated with electronic image manipulation, including color correction, color separation, special effects and image conversion. Topics include image-capturing hardware, image-processing software and output options. Upon completion, students should be able to utilize hardware and software to acquire, manipulate and output images to satisfy design and production. <i>This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.</i>	
<b>GRA 221 Graphic Arts II</b> 2 4 0 4		<b>GRA 256 Image Manipulation II</b> 1 3 0 2	
Prerequisites: GRA 121 and GRA 151		Prerequisites: GRA 255	Corequisites: None
Corequisites: None		Effective Term: 1997*02	
Effective Term: 1997*02		This course covers electronic color separation and its relationship to multi-color printing. Topics include color theory, separation, color matching, proofing and output of process and spot color images. Upon completion, students should be able to use hardware and image processing software to produce color separations and proofs for various printing processes. <i>This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.</i>	
This course is a continuation of GRA 121. Topics include multi-color image preparation, pre-press production, control of close/hairline register in image assembly and press operation and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of graphic arts production. <i>This course is limited to the students currently</i>		<b>GRA 257 Image Manipulation III</b> 1 3 0 2	
		Prerequisites: GRA 153 and GRA 256	
		Corequisites: None	
		Effective Term: 1997*02	
		This course is a continuation of GRA 256. Emphasis is placed on producing quality color separations through	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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image manipulation, gray component replacement/undercolor removal, dot-gain compensation and color correction. Upon completion, students should be able to use hardware and software to produce color separations that have been adjusted to meet tolerance of printing production equipment. *This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology program.*

## GRAPHIC DESIGN

**GRD 141 Graphic Design I** 2 4 0 4

Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects.

**GRD 271 Multimedia Design I** 1 3 2

Prerequisites: GRD 151 or GRA 151  
Corequisites: None  
Effective Term: 1997\*02

This course introduces the fundamentals of multimedia design and production for computer-related presentations. Topics include interface design, typography, storyboarding, scripting, simple animation, graphics, digital audiovideo, and copyright issues. Upon completion, students should be able to design and produce multimedia presentations.

## HEAVY EQUIPMENT

**HET 110 Diesel Engines** 3 9 0 6

Prerequisites: None Corequisites: None  
Effective Term: 1999\*03

This course introduces theory, design, terminology and operating adjustments for diesel engines. Emphasis is placed on safety, theory of operation, inspection, measuring and rebuilding diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems and repair diesel engines.

**HET 112 Diesel Electrical Systems** 3 6 0 5

Prerequisites: None Corequisites: None  
Effective Term: 1999\*03

This course introduces electrical theory and applications as they relate to diesel powered equipment. Topics include lighting, accessories, safety, starting, charging,

instrumentation and gauges. Upon completion, students should be able to follow schematics to identify, repair and test electrical circuits and components.

**HET 114 Power Trains** 3 6 0 5

Prerequisites: None Corequisites: None  
Effective Term: 1999\*03

This course introduces power transmission devices. Topics include function and operation of gears, chains, clutches, planetary gears, drive lines, differentials and transmissions. Upon completion, students should be able to identify, research specifications, repair and adjust power train components.

**HET 116 Air Cond./Diesel Equip.** 1 2 0 2

Prerequisites: None Corequisites: None  
Effective Term: 1999\*03

This course provides a study of the design, theory, and operation of heating and air conditioning systems in newer models of medium and heavy duty vehicles. Topics include component function, refrigerant recovery and environmental regulations. Upon completion, students should be able to use proper techniques and equipment to diagnose and repair heating/air conditioning systems according to industry standards.

**HET 119 Mechanical Transmissions** 2 2 0 3

Prerequisites: None Corequisites: None  
Effective Term: 1999\*03

This course introduces the operating principles of mechanical medium and heavy duty truck transmissions. Topics include multiple counter shafts, power take-offs, sliding idler clutches and friction clutches. Upon completion, students should be able to diagnose, inspect and repair mechanical transmissions.

**HET 125 Preventive Maintenance** 1 3 0 2

Prerequisites: None Corequisites: None  
Effective Term: 1999\*03

This course introduces preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Topics include preventive maintenance schedules, services, DOT rules and regulations and road ability. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

**HET 230 Air Brakes** 1 2 0 2

Prerequisites: None Corequisites: None  
Effective Term: 1999\*03

This course introduces the operation and design of air braking systems used on trucks. Topics include safety,

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
governors, compressors and supporting systems. Upon completion, students should be able to diagnose, disassemble, inspect, repair and reassemble air brake systems.		Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic and cultural developments in early western civilization. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavior sciences.	
<b>HET 233 Suspension and Steering</b>	2 4 0 4	<b>HIS 122* Western Civilization II</b>	3 0 0 3
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1999*03		Effective Term: 1997*02	
This course introduces the theory and principles of medium and heavy duty steering and suspension systems. Topics include wheel and tire problems, frame members, fifth wheel, bearings and coupling systems. Upon completion, students should be able to troubleshoot, adjust and repair suspension and steering components on medium and heavy duty vehicles.		This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic and cultural developments in modern western civilization. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavior sciences.	
<b>HISTORY</b>		<b>HIS 131* American History I</b>	
<b>HIS 111* World Civilizations I</b>	3 0 0 3	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1997*02	
Effective Term: 1997*02		This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic and cultural developments in early American history. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavior sciences.	
This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic and cultural developments in pre-modern world civilizations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavior sciences.		<b>HIS 132* American History II</b>	3 0 0 3
<b>HIS 112* World Civilizations II</b>	3 0 0 3	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1997*02	
Effective Term: 1997*02		This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic and cultural developments in American history since the Civil War. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavior sciences.	
This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic and cultural developments in modern world civilizations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavior sciences.		<b>HIS 121* Western Civilization I</b>	
<b>HIS 121* Western Civilization I</b>	3 0 0 3	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1997*02	
Effective Term: 1997*02		This course introduces western civilization from pre-history to the early modern era. Topics include ancient	

Course Title	Hours Per Week					Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr	
<b>HIS 151* Hispanic Civilization</b>	3	0	0	3		<b>HOR 114 Landscape Construction</b>	2	2	0	3	
Prerequisites: None					Corequisites: None	Prerequisites: None					Corequisites: None
Effective Term: 1997*02						Effective Term: 1997*02					
This course surveys the cultural history of Spain and its impact on the New World. Topics include Spanish and Latin American culture, literature, religion and the arts. Upon completion, students should be able to analyze the cultural history of Spain and Latin America. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.						This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.					
<b>HIS 221* African-American History</b>	3	0	0	3		<b>HOR 116 Landscape Management</b>	2	2	0	3	
Prerequisites: None					Corequisites: None	Prerequisites: None					Corequisites: None
Effective Term: 1997*02						Effective Term: 1997*02					
This course covers African-American history from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement and contributions of African Americans. Upon completion, students should be able to analyze significant political, socioeconomic and cultural developments in the history of African Americans. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*						This course covers information and skills necessary to analyze a property and develop a management schedule. Emphasis is placed on property measurement, plant condition, analysis of client needs and plant-culture needs. Upon completion, students should be able to analyze a property, develop management schedules and implement practices based on client needs.					
						<b>HOR 118 Equipment Op &amp; Maint</b>	1	3	0	2	
						Prerequisites: None					Corequisites: None
						Effective Term: 1997*02					
						This course covers the proper operation and maintenance of selected equipment used in horticulture. Emphasis is placed on the maintenance, minor repairs, safety devices and actual operation of selected equipment. Upon completion, students should be able to design a maintenance schedule, service equipment and demonstrate safe operation of selected equipment.					
						<b>HOR 124 Nursery Operations</b>	2	3	0	3	
						Prerequisites: None					Corequisites: None
						Effective Term: 1997*02					
						This course covers nursery site and crop selection, cultural practices, and production and marketing methods. Topics include site considerations, water availability, equipment, irrigation, fertilization, containers, media and pest control. Upon completion, students should be able to design and implement a nursery operation and grow and harvest nursery crops.					
<b>HOR 110 Intro to Landscaping</b>	1	2	0	2		<b>HOR 134 Greenhouse Operations</b>	2	2	0	3	
Prerequisites: None					Corequisites: None	Prerequisites: None					Corequisites: None
Effective Term: 1997*02						Effective Term: 1997*02					
This course introduces the basic skills and concepts of drafting and surveying necessary to complete landscape site analysis and topographical drawings. Emphasis is placed on proper use of drafting and survey equipment. Upon completion, students should be able to draw a site analysis drawing with topographical lines.						This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the					
<b>HOR 112 Landscape Design I</b>	2	3	0	3							
Prerequisites: <b>HOR 110 and HOR 160</b>											
Corequisites: None											
Effective Term: 1997*02											
This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection and proper plant utilization. Upon completion, students should be able to read, plan and draft a landscape design.											

## HORTICULTURE

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
environmental control, record keeping, scheduling and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.		<b>HOR 162 Applied Plant Science</b> 2 2 0 3	
<b>HOR 150 Intro to Horticulture</b> 2 0 0 2		Prerequisites: None Corequisites: None	
Prerequisites: None Corequisites: None		Effective Term: 1997*02	
Effective Term: 1997*02		This course introduces the basic concepts of botany as they apply to horticulture. Topics include nomenclature, physiology, morphology and anatomy as they apply to plant culture. Upon completion, students should be able to apply the basic principles of botany to horticulture.	
This course covers the history, development and basic techniques of horticulture. Topics include propagation techniques, planting procedures, watering and fertility, plant growth, pest and disease control, and garden design and history. Upon completion, students should be able to demonstrate an understanding of the basic principles of horticulture.		<b>HOR 164 Hort Pest Management</b> 2 2 0 3	
<b>HOR 152 Horticulture Practices</b> 0 3 0 1		Prerequisites: None Corequisites: None	
Prerequisites: None Corequisites: None		Effective Term: 1997*02	
Effective Term: 1997*02		This course covers the identification and control of plant pests including insects, diseases and weeds. Topics include pest identification and chemical regulations, safety and pesticide application. Upon completion, students should be able to meet the requirements for North Carolina Commercial Pesticide Ground Applicators license.	
This course covers the maintenance of ornamental plantings and production areas. Topics include maintenance of flower beds, vegetable gardens, greenhouses and container and field nursery stock using sound horticultural practices. Upon completion, students should be able to apply the principles and practices of maintaining ornamental landscape plantings.		<b>HOR 166 Soils &amp; Fertilizers</b> 2 2 0 3	
<b>HOR 154 Intro to Hort Therapy</b> 2 4 0 4		Prerequisites: None Corequisites: None	
Prerequisites: <b>HOR 168</b> Corequisites: None		Effective Term: 1997*02	
Effective Term: 1997*02		This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation, classification, physical and chemical properties, testing, fertilizer application and other amendments. Upon completion, students should be able to analyze, evaluate and properly amend soils/media.	
This course introduces the concept of horticulture therapy and how it can be applied to improve human well-being. Emphasis is placed on developing a horticulture therapy program, planning activities, and adjusting activities based on the age, disability, or need of the individual. Upon completion, students should be able to develop project ideas, write lesson plans and lead informal classes using horticulture therapy techniques.		<b>HOR 168 Plant Propagation</b> 2 2 0 3	
<b>HOR 160 Plant Materials I</b> 2 2 0 3		Prerequisites: None Corequisites: None	
Prerequisites: None Corequisites: None		Effective Term: 1997*02	
Effective Term: 1997*02		This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.	
This course covers identification, culture, characteristics and use of plants. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.		<b>HOR 170 Hort Computer Apps</b> 1 3 0 2	
		Prerequisites: <b>CIS 111</b> Corequisites: None	
		Effective Term: 1997*02	
		This course introduces computer programs as they apply to the horticulture industry. Emphasis is placed on applications of software for plant identification, design and irrigation. Upon completion, students should be able to use computer programs in horticultural situations.	
		<b>HOR 213 Landscape Design II</b> 2 2 0 3	
		Prerequisites: <b>HOR 112</b> Corequisites: None	
		Effective Term: 1997*02	
		This course covers residential and commercial landscape design, cost analysis and installation. Emphasis is placed	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
on job cost estimates, installation of the landscape design and maintenance techniques. Upon completion, students should be able to read landscape design blueprints, develop cost estimates and implement the design.					and insect scouting for IPM. Upon completion, students should be able to demonstrate an understanding of insect and disease identification, collection and control.				
<b>HOR 215 Landscape Irrigation</b>	2	2	0	3	<b>HOR 255 Interiorscapes</b>	1	2	0	2
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces basic irrigation design, layout and installation. Topics include site analysis, components of irrigation systems, safety, types of irrigation systems and installation techniques. Upon completion, students should be able to design and install basic landscape irrigation systems.					This course covers plant selection, design and management for interior settings. Topics include tropical plant identification, cultural requirements, insect and disease identification and control, and design and management requirements for interior plants. Upon completion, students should be able to design, install and manage plants in interior settings.				
<b>HOR 225 Nursery Production</b>	2	3	0	3	<b>HOR 257 Arboriculture Practices</b>	1	3	0	2
Prerequisites: None	Corequisites: None				Prerequisites: HOR 160	Corequisites: None			
Effective Term: 1998*03					Effective Term: 1997*02				
This course covers all aspects of nursery crop production. Emphasis is placed on field production and covers soils, nutrition, irrigation, pest control and harvesting. Upon completion, students should be able to produce a marketable nursery crop.					This course covers the culture and maintenance of trees and shrubs. Topics include fertilization, pruning, approved climbing techniques, pest control, and equipment use and safety. Upon completion, students should be able to properly prune trees and shrubs and perform arboricultural practices.				
<b>HOR 235 Greenhouse Production</b>	2	2	0	3	<b>HOR 260 Plant Materials II</b>	2	2	0	3
Prerequisites: None	Corequisites: None				Prerequisites: <b>HOR 160</b>	Corequisites: None			
Effective Term: 1997*02					Effective Term: 2001*03				
This course covers the production of greenhouse crops. Emphasis is placed on product selection and production based on market needs and facility availability, including record keeping. Upon completion, students should be able to select and make production schedules to successfully produce greenhouse crops.					This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, culture requirements and landscape uses. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.				
<b>HOR 245 Horticulture Specialty Crops</b>	2	2	0	3	<b>HOR 265 Adv Plant Materials</b>	1	2	0	2
Prerequisites: None	Corequisites: None				Prerequisites: <b>HOR 260</b>	Corequisites: None			
Effective Term: 1997*02					Effective Term: 2001*03				
This course covers introduces the techniques and requirements for the production of horticultural crops of special or local interest. Topics include development of a local market, proper varietal selection, cultural practices, site selection and harvesting and marketing practices. Upon completion, students should be able to choose, grow and market a horticultural crop of special or local interest.					This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, cultural requirements and landscape use. Upon completion, students should be able to correctly select plants for specific landscape uses.				
<b>HOR 251 Insects &amp; Diseases</b>	2	2	0	3	<b>HOR 271 Garden Center Mgmt</b>	2	0	0	2
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces insects and diseases of economic importance to horticultural crops. Topics include insect life cycles and identifying characteristics; plant diseases, including their signs and symptoms; control methods;					This course covers the retail marketing of gardening products and services through mass market and independent garden centers. Topics include garden center layout, customer relations, market choice, product lines, vendors and the relationship with the broader horticultural community. Upon completion,				

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
students should be able to demonstrate an understanding of the principles and practices of the retail garden center.		design issues in an HPC system.	
<b>HOR 273 Hor Mgmt &amp; Marketing</b> 3 0 0 3		<b>HPC 162 HPC Security</b> 2 2 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: HPC 110	Corequisites: None
Effective Term: 1997*02		Effective Term: 2002*03	
This course covers the steps involved in starting or managing a horticultural business. Topics include financing, regulations, market analysis, employer/employee relations, formulation of business plans and operational procedures in a horticultural business. Upon completion, students should be able to assume ownership or management of a horticultural business.		This course provides an overview of distributed computer security issues as related to HPC services. Topics include cryptographic technologies, protocols used to construct secure and private systems, Internet service security mechanisms, firewalls, auditing and related topics. Upon completion, students should be able to implement security procedures for an HPC system.	
<b>HIGH PERFORMANCE COMPUTING</b>		<b>HPC 172 HPC Applications</b> 2 2 0 3	
<b>HPC 110 Intro to HPC</b> 2 2 0 3		Prerequisites: HPC 110	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 2002*03	
This course introduces students to the terminology, hardware performance issues programming models and software tools available for High Performance Computing (HPC). Topics include a survey of HPC concepts and terminology, HPC operating systems, memory models and architecture, PC clusters, highly integrated supercomputers and high-speed communications. Upon completion, students should be able to build a PC cluster.		This course introduces students to currently available HPC applications highlighting software approaches and hardware platforms. Topics include a review of successfully deployed HPC systems in industry and research environments and decision-making techniques when selecting HPC. Upon completion, students should be able to discuss, in oral as well as written form, current HPC applications highlighting strengths and weaknesses.	
<b>HPC 130 Intro to HPC Comm.</b> 2 2 0 3		<b>HPC 180 Intro to Cluster Comput</b> 2 2 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 2002*03		Effective Term: 2002*03	
This course introduces students to the communications aspect of remotely accessing massively parallel machines and PC clusters. Topics include single and multi-stage interconnection networks, optimization techniques, load balancing, bandwidths, data communications and buffer size optimization. Upon completion, students should be able to discuss and evaluate high-speed communication techniques and strategies in HPC systems.		This course provides students with the current and emerging trends in cluster computing. Topics include current and emerging technologies in system architecture, networking, software environments, configuration, management tools, application libraries and utilities in a cluster environment. Upon completion, students should be able to discuss and illustrate fundamental cluster technology approaches using examples from engineering, scientific and/or data intensive applications.	
<b>HPC 140 Intro to HPC Architecture</b> 2 2 0 3		<b>HPC 240 Adv HPC Architecture</b> 2 2 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: HPC 140	Corequisites: None
Effective Term: 2002*03		Effective Term: 2002*03	
This course introduces students to hardware architecture for the High Performance Computing environment (HPC). Topics include distributed and shared memory systems, hardware design issues, vector parallel machines and communication issues of remote massively parallel machines and clusters. Upon completion, students should be able to discuss and evaluate architectural		This course introduces students to advanced hardware architecture for an HPC system. Topics include topology of parallel computer architecture, arithmetic pipeline design, array machines, distributed architecture, multi-processor computers, SIMD, MIMD machines and current parallel machines. Upon completion, students should be able to design and discuss a user-specified HPC architecture system.	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Ca	Cr		Cl	Lb	Ca	Cr
<b>HPC 245    Grid Technologies</b>	2	2	0	3	<b>HSE 112    Group Process I</b>	1	2	0	2
Prerequisites: HPC 110	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 2002*03					Effective Term: 1997*02				
This course introduces students to Grid technologies and distributed computing architecture. Topics include distributed security architecture, data formats, distributed file systems, access control of shared resources and multi-institutional collaborative environments. Upon completion, students should be able to discuss, in oral and written form, issues related to creating a scalable, distributes and secure HPC Grid environment.					This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.				
<b>HPC 280    Adv Cluster Computing</b>	2	2	0	3	<b>HSE 123    Interviewing Techniques</b>	2	2	0	3
Prerequisites: HPC 180	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 2002*03					Effective Term: 1997*02				
This course introduces students to advanced design techniques and related issues in cluster computing. Topics include a review of successfully deployed cluster systems used in commerce, industry and research environments. Upon completion, students should be able to summarize findings and draw conclusions about current cluster technology, discuss emerging technology trends and clusters of the future.					This course covers the purpose, structure, focus and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.				
<b>HPC 285    Sys Analysis and Design</b>	3	3	0	3	<b>HSE 125    Counseling</b>	2	2	0	3
Prerequisites: HPC 110	Corequisites: None				Prerequisites: PSY 150	Corequisites: None			
Effective Term: 2002*03					Effective Term: 1997*02				
This course provides an opportunity for students to complete a significant HPC systems project with minimal instructor support. Emphasis is placed on project definition, documentation, testing and presentation. Upon completion, students should be able to complete an HPC project.					This course covers the major approaches to psychotherapy and counseling, including theory, characteristics and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.				
<b>HUMAN SERVICES</b>					<b>HSE 127    Conflict Resolution</b>				
<b>HSE 110    Intro to Human Services</b>	2	2	0	3	Prerequisites: None	Corequisites: None			
Prerequisites: None	Corequisites: None				Effective Term: 1997*02				
This course introduces the human services field, including the history, agencies, roles and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills and roles of the human services worker.					This course introduces conflict resolution and mediation theory and practice. Emphasis is placed on achieving compromise and a win/win perception. Upon completion, students should be able to demonstrate competence in identifying seemingly dissimilar positions and facilitating agreement.				
					<b>HSE 150    Preventive Intervention</b>				
					Prerequisites: None	Corequisites: None			
					Effective Term: 1997*02				
					This course presents skills training for prevention and control of violent behavior. Emphasis is placed on safety procedures which promote positive outcomes for clients and workers. Upon completion, students should be able to identify and demonstrate safety procedures for all persons involved.				

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>HSE 210 Human Services Issues</b> 2 0 0 2		the elderly. Upon completion, students should be able to demonstrate an understanding of families as a system and the impact of change on family structure.	
Prerequisites: None Corequisites: None		<b>HSE 245 Stress Management</b> 2 2 0 3	
Effective Term: 1998*03		Prerequisites: None Corequisites: None	
This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.		Effective Term: 1997*02	
<b>HSE 220 Case Management</b> 2 2 0 3		This course covers stressors and techniques for stress management. Topics include anger, assertiveness, breathing, change, coping skills, family, time management, meditation, guided imagery and journaling. Upon completion, students should be able to identify areas of stress and the skills and management techniques for dealing with stressors.	
Prerequisites: HSE 110 Corequisite: None		<b>HSE 250 Financial Services</b> 2 0 0 2	
Effective Term: 1997*02		Prerequisites: None Corequisites: None	
This course covers the variety of tasks associated with professional case management. Topics include treatment planning, needs assessment, referral procedures and follow-up and integration of services. Upon completion, students should be able to effectively manage the care of the whole person from initial contact through termination of services.		Effective Term: 1997*02	
<b>HSE 225 Crisis Intervention</b> 3 0 0 3		This course introduces those agencies that provide income maintenance casework services. Emphasis is placed on qualifying applicants for a variety of economic assistant programs offered by human services agencies. Upon completion, students should be able to make a factual and objective assessment of a client's economic situation to qualify them for economic assistance.	
Prerequisites: None Corequisites: None		<b>HSE 251 Activities Therapy</b> 2 2 0 3	
Effective Term: 1997*02		Prerequisites: None Corequisites: None	
This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.		Effective Term: 1997*02	
<b>HSE 240 Issues in Client Services</b> 3 0 0 3		This course introduces skills and techniques used in recreation and leisure activities to enhance the lives of special populations. Emphasis is placed on music, art and recreational therapy. Upon completion, students should be able to define, plan and adapt recreational activities for selected groups and individuals.	
Prerequisites: None Corequisites: None		<b>HSE 255 Health Prob &amp; Prevent</b> 2 2 0 3	
Effective Term: 1997*02		Prerequisites: None Corequisites: None	
This course introduces systems of professional standards, values and issues in the helping professions. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies, and ethics relative to multicultural counseling and research. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to counseling and apply various decision-making models to current issues.		Effective Term: 1997*02	
<b>HSE 242 Family Systems</b> 2 2 0 3		This course surveys a range of health problems and issues, including the development of prevention strategies. Topics include teen pregnancy, HIV/AIDS, tuberculosis, communicable diseases, professional burnout, substance abuse and sexually transmitted diseases. Upon completion, students should be able to identify health issues and demonstrate prevention strategies.	
Prerequisites: PSY 150 or SOC 210			
Corequisites: None			
Effective Term: 1997*02			
This course introduces the concepts of family structure as a system and includes the impact of contemporary society on the family. Topics include systems theory, family structure, blended families, divorce, adoption and			

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>HUMANITIES</b>									
<b>HUM 110* Technology and Society</b>	3	0	0	3	<b>HUM 130* Myth in Human Culture</b>	3	0	0	3
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.					This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.				
<b>HUM 115* Critical Thinking</b>	3	0	0	3	<b>HUM 150* American Women's Studies</b>	3	0	0	3
Prerequisites: ENG 095 or RED 090 and ENG 090	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 2003*01					Effective Term: 1997*02				
This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities requirement for AAS degree programs.					This course provides an inter-disciplinary study of the history, literature and social roles of American women from Colonial times to the present. Emphasis is placed on women's roles as reflected in American language usage, education, law, the workplace and mainstream culture. Upon completion, students should be able to identify and analyze the roles of women as reflected in various cultural forms. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.				
<b>HUM 120* Cultural Studies</b>	3	0	0	3	<b>HUM 160* Introduction to Film</b>	2	2	0	3
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1999*03				
This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.					This course introduces the fundamental elements of film artistry and production. Topics include film styles, history and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.				
<b>HUM 121* The Nature of America</b>	3	0	0	3					
Prerequisites: None	Corequisites: None								
Effective Term: 1997*02									
This course provides an interdisciplinary survey of the American cultural, social and political experience. Emphasis is placed on the multicultural character of American society, distinctive qualities of various regions									

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>HUM 170* The Holocaust</b>	3	0	0	3	cylinders, filters, reservoirs, lines and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.				
Prerequisites: None				Corequisites: None					
Effective Term: 1997*02									
This course provides a survey of the destruction of European Jewry by the Nazis during World War II. Topics include the anti-Semitic ideology, bureaucratic structures and varying conditions of European occupation and domination under the Third Reich. Upon completion, students should be able to demonstrate an understanding of the historical, social, religious, political and economic factors that cumulatively resulted in the Holocaust. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.					<b>HYD 115 Industrial Hydraulics</b>	2	2	0	3
					Prerequisites: None				Corequisites: None
					Effective Term: 2002*03				
					This course introduces basic principles, components, and concepts of industrial hydraulic systems. Topics include standard symbols, actuators, control valves and other hydraulic components. Upon completion, the student should be able to demonstrate an understanding of the principles, concepts, and operation of an industrial hydraulic system.				
<b>HUM 220* Human Values and Meaning</b>	3	0	0	3	<b>Interventional Cardiac and Vascular</b>				
Prerequisites: ENG 111				Corequisites: None					
Effective Term: 1997*02					<b>ICV 110 Patient Care &amp; Invasive Fundamentals</b>	2	2	0	3
This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society and meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.					Prerequisites: None				Corequisites: None
					Effective Term: 2005*03				
					This course introduces specialized patient care and management, physiological monitoring, general procedure considerations and underlying fundamentals needed to perform a cardiovascular or vascular procedure. Emphasis is placed on patient preparation and communication, pressure measurements, ECG, specialized cardiac monitoring, intravenous therapy, sterile technique, infection control, legal issues, and isolation procedures. Upon completion, students should understand and demonstrate patient care management, use and function of physiological monitoring devices, and sterile technique in regards to infection control.				
<b>HYDRAULICS</b>					<b>ICV 111 ICV Electrocardiography</b>	0	3	0	1
<b>HYD 110 Hydraulics/Pneumatics I</b>	2	3	0	3	Prerequisites: None				Corequisites: None
Prerequisites: None				Corequisites: None	Effective Term: 2005*03				
Effective Term: 1997*02					This course covers the performance and interpretation of the twelve-lead electrocardiogram. Emphasis is placed on patient set-up, the cardiac cycle, electrical conduction pathway, normal rhythms, common dysrhythmias, Holter monitoring, and electrophysiology studies/ablations. Upon completion, students should be able to describe ECG set-up, interpret normal and abnormal rhythms, and discuss testing modalities for invasive and noninvasive cardiology.				
This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application and troubleshooting.									
<b>HYD 112 Hydraulics/Med/Heavy Duty</b>	1	2	0	2					
Prerequisites: None				Corequisites: None					
Effective Term: 1997*02									
This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves,									

Course Title		Hours Per Week				Course Title	Hours Per Week				
		Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr	
<b>ICV 112</b>	<b>ICV Ionizing Radiation Effects</b>	2	0	0	2	monitoring, computer applications in medicine, record keeping, scheduling, and sterile techniques. Upon completion, students should be able to demonstrate basic skills in these areas.					
Prerequisites: None		Corequisites: None									
Effective Term: 2005*03											
This course covers the principles of ionizing radiation effects and protection measures. Emphasis is placed on radiation effects of tissue/cells, preventions to radiation effects, and dose measurement tools. Upon completion, students will be able to identify and explain the effects of radiation in cardiovascular and vascular imaging.											
<b>ICV 113</b>	<b>Interventional Neuro Radiography</b>	1	2	0	2	<b>ICV 130</b>	<b>ICV Clinical Ed III</b>	0	0	12	4
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 2005*03						Effective Term: 2005*03					
This course is designed to concentrate on anatomy and physiology of the neurovascular and neuromuscular systems. Emphasis is placed on up-to-date imaging and interventional techniques. Upon completion, students should be able to identify and demonstrate understanding of neurovascular procedures performed in an interventional lab.						This course provides the student an opportunity to apply knowledge gained from didactic instruction to the cardiovascular/vascular interventional clinical environment. Emphasis is placed on patient care and positioning, imaging procedures, image production and angiography within the cardiovascular/vascular interventional environment. Upon completion, students should be able to assume a variety of duties and responsibilities in the cardiovascular/vascular interventional environment.					
<b>ICV 114</b>	<b>ICV Physics I</b>	1	2	0	2	<b>ICV 214</b>	<b>ICV Physics II</b>	1	2	0	2
Prerequisites: None		Corequisites: None				Prerequisites: ICV 114 ICV Physics I					
Effective Term: 2005*03						Corequisites: None					
This course introduces the fundamental principles of physics that underlie X-ray production and vascular/cardiovascular radiography. Topics include energy, electromagnetic waves, electricity and magnetism, power and circuits as they relate to the cardiovascular/vascular laboratories.						Effective Term: 2005*03					
This course continues the study of physics that underlie X-ray production and the fluoroscopic equipment utilized in cardiovascular/vascular interventional laboratories. Topics include the production of x-rays, electromagnetic interactions with matter, equipment circuitry, targets, filtration, and dosimetry. Upon completion, students should be able to demonstrate an understanding of the application of physical concepts as related to image production.						This course continues the study of physics that underlie X-ray production and the fluoroscopic equipment utilized in cardiovascular/vascular interventional laboratories. Topics include the production of x-rays, electromagnetic interactions with matter, equipment circuitry, targets, filtration, and dosimetry. Upon completion, students should be able to demonstrate an understanding of the application of physical concepts as related to image production.					
<b>ICV 120</b>	<b>ICV Clinical Ed I</b>	0	0	6	2	<b>ICV 215</b>	<b>ICV Quality Assurance</b>	2	0	0	2
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 2005*03						Effective Term: 2005*03					
This course provides the student the opportunity to apply knowledge gained from didactic instruction to the cardiovascular/vascular interventional clinical environment. Emphasis is placed on development of laboratory skills and imaging procedures, image production, patient care and positioning. Upon completion, students should be able to assume a variety of duties and responsibilities in the cardiovascular/vascular interventional laboratories.						This course provides an overview of imaging concepts and introduces methods of quality assurance. Topics include a systematic approach for image evaluation and analysis of imaging service and quality assurance. Upon completion, students should be able to establish and administer a quality assurance program and conduct a critical review of images.					
<b>ICV 125</b>	<b>ICV Clinical Ed II</b>	0	0	12	4	<b>ICV 216</b>	<b>Radiographic Pharmacology</b>	2	0	0	2
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 2005*03						Effective Term: 2005*03					
This course provides the student an opportunity to apply didactic knowledge in the interventional clinical setting. Emphasis is placed on patient care, hemodynamic						This course is designed to inform the student about medications commonly utilized in cardiovascular/vascular labs. Emphasis is placed on drug sources, uses, classifications, dosages, indications,					

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
contraindications, interactions and reactions for various age groups. Upon completion, students should be able to compute dosages and rationalize the uses of therapeutic medications delivered in cardiovascular/vascular interventional labs.		visualize radiographic anatomy, and conduct critical reviews of obtained images.	
<b>ICV 217     Interventional Equip                     &amp; Supplies</b>	2 2 0 3	<b>ICV 220     ICV Clinical Ed IV</b>	0 0 27 9
Prerequisites: None                      Corequisites: None		Prerequisites: None                      Corequisites: None	
Effective Term: 2005*03		Effective Term: 2005*03	
This course covers advanced radiography equipment, instrumentation, image enhancement techniques, physiologic monitoring equipment, inventory and supplies used in interventional lab settings. Emphasis is placed on various filming techniques, digital equipment, principles of magnification, automatic injectors, catheters, guide wires, needles and other needed equipment. Upon completion, the students should understand general angiographic equipment, specialized imaging techniques, needed supplies and principles used in an interventional environment.		This course provides the opportunity to apply knowledge gained from didactic instruction to the cardiovascular interventional clinical environment. Emphasis is placed on patient care, radiation safety, recognition of cardiovascular anatomy and pathology, equipment and imaging procedures and production. Upon completion, students should be able to demonstrate selected cardiac procedures, advanced ECG interpretation, preparation of sterile supplies, and maintenance of equipment and supplies.	
<b>ICV 218     Cardiac Physiology                     &amp; Procedure</b>	3 0 0 3	<b>ICV 230     ICV Clinical Ed V</b>	0 0 27 9
Prerequisites: None                      Corequisites: None		Prerequisites: None                      Corequisites: None	
Effective Term: 2005*03		Effective Term: 2005*03	
This course covers angiographic approaches to diagnostic and interventional procedures performed in a cardiovascular lab. Emphasis is placed on structure, cardiovascular anatomy, hemodynamics of vascular systems, pulmonary circulation, cardiac circulation, filming sequence, patient positioning, and pathology. Upon completion, students should be able to demonstrate knowledge of cardiovascular and supporting systems, methods to visualize radiographic anatomy, and conduct critical reviews of obtained images.		This course provides the opportunity to apply knowledge gained from didactic instruction to the vascular interventional clinical environment. Emphasis is placed on patient care, radiation safety, recognition of vascular anatomy and pathology, equipment and imaging procedures and production. Upon completion, students should be able to demonstrate selected vascular procedures, basic ECG interpretation, preparation of sterile supplies, and maintenance of equipment and supplies.	
<b>ICV 219     Vascular Physiology                     &amp; Procedure</b>	3 0 0 3	<b>ICV 241     ICV Pathology Review</b>	2 0 0 2
Prerequisites: None                      Corequisites: None		Prerequisites: None                      Corequisites: None	
Effective Term: 2005*03		Effective Term: 2005*03	
This course covers angiographic approaches to diagnostic and interventional procedures performed in a vascular lab. Emphasis is placed on structure, vascular anatomy, hemodynamics of vascular systems, peripherals, pulmonary circulation, ECG, neuroangiography, renal and portal systems, filming sequence, patient positioning, and pathology. Upon completion, students should be able to demonstrate knowledge of vascular systems, methods used to		This course is designed to concentrate on complex physiologic and pathologic imaging. Emphasis is placed on evaluation of student case studies performed in the clinical setting. Upon completion, students should be able to identify normal vascular anatomy and recognize various pathologies of the vascular systems.	
		<b>ICV 261     ICV Cardiac Exam Prep</b>	1 0 0 1
		Prerequisites: None                      Corequisites: None	
		Effective Term: 2005*03	
		This course covers the aspects of cardiac technology as practiced in the didactic and clinical settings. Emphasis is placed on content specifications of the RCIS and/or ARRT Advanced-Level exam, study skills, and simulated examinations. Upon completion, students should be able to demonstrate an understanding of the topics presented for successful completion of the cardiac exam(s).	

Course Title		Hours Per Week				Course Title		Hours Per Week			
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr
<b>ICV 262</b>	<b>ICV Vascular Exam Prep</b>	1	0	0	1	<b>INT 210</b>	<b>International Trade</b>	3	0	0	3
Prerequisites: None		Corequisites: None				Prerequisites: None		Corequisites: None			
Effective Term: 2005*03						Effective Term: 2002*03					
<p>This course covers the aspects of vascular technology as practiced in the didactic and clinical settings. Emphasis is placed on content specifications of the RCIS and/or ARRT Advanced-Level exam, study skills, and simulated examinations. Upon completion, students should be able to demonstrate an understanding of the topics presented for successful completion of the vascular exam(s).</p>						<p>This course covers international business trade practices and foreign market research. Emphasis is placed on current trends of US trade practices in foreign countries and how to engage in international trade and acquire foreign marketing information. Upon completion, students should be able to formulate an overall product policy for the international marketplace. This course is a unique concentration requirement of the International Business concentration in the Business Administration program.</p>					
<b>INTERNATIONAL BUSINESS</b>											
<b>INT 110</b>	<b>International Business</b>	3	0	0	3	<b>INT 220</b>	<b>International Economics</b>	3	0	0	3
Prerequisites: None		Corequisites: None				Prerequisites: ECO 151 or ECO 251 or ECO 252					
Effective Term: 1997*02						Corequisites: None					
<p>This course provides an overview of the environment, concepts and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management and international marketing. Upon completion, students should be able to describe the foundation of international business.</p>						<p>This course introduces the forces and criteria for the development of a new international economic order. Emphasis is placed on balance of payments, foreign exchange rates and their determination, International Monetary System, and arguments for and against free trade and protectionism. Upon completion, students should be able to describe economic principles and concepts of international trade. This course is a unique concentration requirement of the International Business concentration in the Business Administration program.</p>					
<b>INT 115</b>	<b>Global Communications</b>	3	0	0	3	<b>INT 230</b>	<b>International Law</b>	3	0	0	3
Prerequisites: None		Corequisites: None				Prerequisites: BUS 115		Corequisites: None			
Effective Term: 2004*03						Effective Term: 2002*03					
<p>This course introduces principles and techniques basic to intercultural business communications. Topics include selected cultural values and customs, verbal and nonverbal communication skills, and global etiquette. Upon completion, students should be able to demonstrate beginning skills in effective verbal and nonverbal intercultural communications.</p>						<p>This course is designed to develop an understanding of the different theories on international law and their effect on international trade. Emphasis is placed on concepts of contracts, international transactions, major organizations in international trade, establishment of treaties, economic areas and US laws affecting international trade. Upon completion, students should be able to apply theories and concepts to international trade and transactions. This course is a unique concentration requirement of the International Business concentration in the Business Administration program.</p>					
<b>INT 180</b>	<b>Travel Study Abroad</b>	3	0	0	3	<b>INDUSTRIAL SCIENCE</b>					
Prerequisites: None		Corequisites: None				<b>ISC 111</b>	<b>Quality Control</b>	2	0	0	2
Effective Term: 1998*03						Prerequisites: None					
<p>This course is designed to apply language and theoretical skills in an appropriate international business setting in a foreign country. Emphasis is placed on strengthening foreign language skills, performing with greater competence and confidence in the international workplace, and completing objectives outlined in training plan. Upon completion, students should be able to understand and utilize cultural patterns and business practices in the region of study.</p>						Corequisites: None					
						Effective Term: 2005*01					
						<p>This course provides training in inspection, gaging methods, and statistical process control concepts.</p>					

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
Topics include special gage design, production gaging, inspection, and statistical process control concepts. Upon completion, students should be able to design and use custom gaging and apply statistical process control concepts.		should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.	
<b>ISC 112 Industrial Safety</b> 2 0 0 2		<b>ISC 151 Plant Layout</b> 2 2 0 3	
Prerequisites: None Corequisites: None		Prerequisites: None Corequisites: None	
Effective Term: 2005*01		Effective Term: 1997*02	
This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment, and OSHA compliance.		This course provides a practical study of factory planning. Emphasis is placed on site selection and efficient arrangement of work areas to achieve lower manufacturing costs. Upon completion, students should be able to produce sample layouts of manufacturing operations.	
<b>ISC 113 Industrial Specifications</b> 1 0 0 1		<b>INTERNET TECHNOLOGIES</b>	
Prerequisites: None Corequisites: None		<b>ITN 110 Intro to Web Graphics</b> 2 2 0 3	
Effective Term: 1997*02		Prerequisites: None Corequisites: None	
This course introduces industrial specifications. Emphasis is placed on using machinist reference materials. Upon completion, students should be able to use and interpret charts and data found in reference materials.		Effective Term: 1999*03	
<b>ISC 115 Construction Safety</b> 2 0 0 2		This course is the first of two courses covering the creation of web graphics, addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, type conversion, RGB color, the browser-safe palette, elementary special effects, image maps and other related topics. Upon completion, students should be able to create graphics such as banners, buttons, backgrounds and other graphics for Web pages.	
Prerequisites: None Corequisites: <b>ELC 113</b>		<b>ITN 120 Intro to Internet Multimedia</b> 2 2 0 3	
Effective Term: 1997*02		Prerequisites: None Corequisites: None	
This course introduces the basic concepts of construction site safety. Topics include ladders, lifting, lock-out/tag-out, personal protective devices, scaffolds and above/below ground work based on OSHA regulations. Upon completion, students should be able to demonstrate knowledge of applicable safety regulations and safely participate in construction projects.		Effective Term: 1999*03	
<b>ISC 121 Envir Health &amp; Safety</b> 3 0 0 3		This is the first of two courses covering the creation of Internet Multimedia. Topics include Internet multimedia file types, file type conversion, acquisition of digital audio/video, streaming audio/video and graphics animation plug-in programs and other related topics. Upon completion, students should be able to create Internet multimedia presentations utilizing a variety of methods and applications.	
Prerequisites: None Corequisites: None		<b>ITN 130 Web Site Management</b> 2 2 0 3	
Effective Term: 2005*01		Prerequisites: None Corequisites: None	
This course covers workplace environmental health and safety concepts. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental health and safety.		Effective Term: 1999*03	
<b>ISC 132 Mfg Quality Control</b> 2 3 0 3		This course covers the issues involved in web site architecture. Topics include operating system directory structures, web site structural design, web site navigation, web site maintenance, backup and security. Upon completion, students should be able to design a web site directory plan optimized for navigation and ease of maintenance.	
Prerequisites: None Corequisites: None			
Effective Term: 1997*02			
This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability and quality improvement tools. Upon completion, students			

Course Title		Hours Per Week				Course Title		Hours Per Week			
		Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr
<b>ITN 140</b>	<b>Web Development Tools</b>	2	2	0	3	be able to create graphics that are optimized for size and graphic file type, properly converted from digitized sources and create useful animated graphics.					
Prerequisites: None		Corequisites: None									
Effective Term: 1999*03											
This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.											
<b>ITN 150</b>	<b>Internet Protocols</b>	2	2	0	3						
Prerequisites: None		Corequisites: None									
Effective Term: 1999*03											
This course introduces the student to the application protocols used on the Internet. Topics include HTTP, Secure HTTP, TCP/IP, and related applications such as FTP, TELNET and PING. Upon completion, the student will be able to use the protocols as they pertain to the Internet, as well as, set-up and maintain these protocols.											
<b>ITN 160</b>	<b>Principles of Web Design</b>	2	2	0	3						
Prerequisites: None		Corequisites: None									
Effective Term: 1999*03											
This course introduces intermediate to advanced web page design techniques. Topics include effective use of graphics, fonts, colors, navigation tools, advanced markup language elements, as well as a study of bad design techniques. Upon completion, the student should be able to employ advanced design techniques to create high impact and highly functional web pages.											
<b>ITN 170</b>	<b>Intro to Internet Databases</b>	2	2	0	3						
Prerequisites: None		Corequisites: None									
Effective Term: 1999*03											
This is the first of two courses introducing the use of databases to store, retrieve and query data through HTML forms. Topics include database design for Internet databases, uses of ODBC-compliant databases. Upon completion, students should be able to create and maintain a database that will collect, query and report on data via an HTML form.											
<b>ITN 210</b>	<b>Advanced Web Graphics</b>	2	2	0	3						
Prerequisites: ITN 110		Corequisites: None									
Effective Term: 1999*03											
This course is the second of two courses covering web graphics. Topics include graphics acquisition using scanners and digital cameras, graphics optimization, use of masks, advanced special effects, GIF animation and other related topics. Upon completion, students should											

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
legal system and an emphasis is placed on the role of professional and legal ethics. Topics include regulation, ethics, case analysis, legal reasoning, career opportunities, professional organizations, terminology and other related topics. Upon completion, the student should be able to explain the role of a paralegal and identify the skills, knowledge and ethics required of paralegals.		<b>LEX 141 Civil Litigation II</b> 2 2 0 3 Prerequisites: LEX 140 Corequisites: None Effective Term: 2000*03  This course covers advanced topics in the civil litigation process. Topics include motions, discovery, and trial and appellate procedures. Upon completion, students should be able to assist an attorney in preparing and organizing documents for trial, settlement and post-trial practice.	
<b>LEX 120 Legal Research/Writing I</b> 2 2 0 3 Prerequisites: None Corequisites: None Effective Term: 1997*02  This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.		<b>LEX 150 Commercial Law I</b> 2 2 0 3 Prerequisites: None Corequisites: None Effective Term: 2000*03  This course covers legally enforceable agreements, forms of organization and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases and related documents, and selection and implementation of business organization forms, sales and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents and understand the role of commercial paper.	
<b>LEX 121 Legal Research/Writing II</b> 2 2 0 3 Prerequisites: LEX 120 Corequisites: None Effective Term: 1997*02  This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.		<b>LEX 151 Commercial Law II</b> 3 0 0 3 Prerequisites: LEX 150 Corequisites: None Effective Term: 2000*03  This course is a continuation of LEX 150 and covers advanced topics in Business and Commercial Law. Topics include agency and employment, insurance, computer law, intellectual property, personal property and bailment, corporate organizations and bankruptcy. Upon completion, students will understand and be able to apply legal principles governing these topics and be able to draft a variety of financial instruments.	
<b>LEX 130 Civil Injuries</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 2000*03  This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies and damages. Upon completion, students should be able to recognize, explain and evaluate elements of civil injuries and related defenses.		<b>LEX 160 Criminal Law &amp; Procedure</b> 2 2 0 3 Prerequisites: None Corequisites: None Effective Term: 1997*02  This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial and trial process and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.	
<b>LEX 140 Civil Litigation I</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 2000*03  This course introduces the structure of the legal system and the rules governing civil litigation. Topics include jurisdiction, state and federal rules of civil procedure, and evidence. Upon completion, students should be able to assist an attorney in pre-litigation matters and preparation of pleadings and motions.		<b>LEX 210 Real Property I</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 2000*03  This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
conveyance and encumbrance, recordation, special proceedings and other related topics. Upon completion, students should be able to identify estates, forms of deeds, requirements for recording and procedures to enforce rights to real property.		custody, support, property division, adoption, domestic violence and other related topics. Upon completion, students should be able to interview clients, gather information and draft documents related to family law.	
<b>LEX 211 Real Property II</b> 1 4 0 3		<b>LEX 250 Wills, Estates, &amp; Trusts</b> 2 2 0 3	
Prerequisites: LEX 210 Corequisites: None		Prerequisites: None Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms and prepare disbursement reconciliation.		This course covers various types of wills, trusts, probate, estate administration and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation and explain terms regarding trusts.	
<b>LEX 214 Investigat &amp; Trial Prep</b> 1 4 0 3		<b>LEX 260 Bankruptcy &amp; Collections</b> 3 0 0 3	
Prerequisites: None Corequisites: None		Prerequisites: None Corequisites: None	
Effective Term: 2000*03		Effective Term: 2006*01	
This course introduces the fundamentals of investigation. Topics include compiling/assembling data for cases; investigative planning/information gathering techniques; locating/interviewing witnesses; collection/preserving/evaluating sufficiency/admissibility of evidence; preparation of reports; and evidence presentation at depositions/court proceeding. Upon completion, students should be able to plan/use investigative checklists, understand/demonstrate investigative techniques, prepare reports, and enhance verbal and interpersonal communications skills and interviewing techniques.		This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossession, foreclosure, collection, garnishment and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens and collection of judgments.	
<b>LEX 220 Corporate Law</b> 2 0 0 2		<b>LEX 270 Law Office Mgt/Technology</b> 1 2 0 2	
Prerequisites: None Corequisites: None		Prerequisites: None Corequisites: None	
Effective Term: 1997*02		Effective Term: 2000*03	
This course covers the legal aspects of forming, operating and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.		This course provides an overview of law office management and organization. Topics include office forms, filing systems, billing/time keeping, computer systems, calendar systems, library administration, case management, office/personnel procedures, ethics and technology. Upon completion, students should be able to establish and maintain various law office systems, monitor case progress and supervise non-lawyer personnel.	
<b>LEX 240 Family Law</b> 3 0 0 3		<b>LEX 280 Ethics &amp; Professionalism</b> 2 0 0 2	
Prerequisites: None Corequisites: None		Prerequisites: None Corequisites: None	
Effective Term: 2000*03		Effective Term: 2000*03	
This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child		This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities and search techniques; paralegal certification and other related topics. Upon completion, students should be able to understand the paralegal's role in the ethical practice of law.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>LEX 283 Investigation</b>	1 2 0 2	Administration program.	
Prerequisites: None	Corequisites: None	<b>LOG 125 Transportation Logistics</b>	3 0 0 3
Effective Term: 2000*03		Prerequisites: LOG 110	Corequisites: None
This course covers various aspects of civil and criminal investigation. Topics include locating witnesses, interviewing techniques, obtaining records, sketching and photographing accident scenes, collecting and preserving evidence and preparation of exhibits for trial. Upon completion, students should be able to locate witnesses, prepare questionnaires, interview witnesses, obtain criminal/motor vehicle/medical/accident records, sketch scenes and prepare exhibits.		Effective Term: 2001*03	
<b>LEX 287 CLA Review Seminar</b>	2 0 0 2	This course covers the role and importance of the transportation industry. This is an overview of transportation emphasizing its environmental and sociological aspects, economic impact, services, regulatory guidelines, policies and its future. Upon completion, students should be able to identify modes of transportation, interpret governing regulations, and describe the principles and terminology used in the transportation industry.	
Prerequisites: LEX 210	Corequisites: None	<b>LOG 210 Fleet Management</b>	3 0 0 3
Effective Term: 2006*01		Prerequisites: LOG 110	Corequisites: None
This course is designed to prepare students for voluntary national certification sponsored by the National Association of Legal Assistants to demonstrate significant competencies in paralegalism. Topics include Communications, Ethics, Human Relations, Interviewing Techniques, Judgment and Analytical Analysis, Legal Research, Legal Terminology, General Law and nine tested specialty areas of law. Upon completion, students should be able to demonstrate that they are eligible to take the NALA's Certified Legal Assistant Exam.		Effective Term: 1997*02	
<b>LOGISTICS</b>		This course covers the management of transportation, fleet operations and safety. Emphasis is placed on DOT safety regulations in the hiring, training and supervision of drivers in transportation. Upon completion, students should be able to write a safety program for drivers involved in interstate commerce following DOT regulations.	
<b>LOG 110 Introduction to Logistics</b>	3 0 0 3	<b>LOG 215 Supply Chain Management</b>	3 0 0 3
Prerequisites: None	Corequisites: None	Prerequisites: LOG 110	Corequisites: None
Effective Term: 1997*02		Effective Term: 2001*03	
This course provides an overview of logistics. Topics include traffic management, warehousing, inventory control, material handling, global logistics, and the movement and storage of goods from raw materials sources to end consumers. Upon completion, students should be able to identify the different segments of logistics and use the terminology of the industry.		This course covers all activities involved in the flow of products and information between the suppliers, customers, producers and service providers. Topics include acquiring, purchasing, manufacturing, assembling, and distributing goods and services throughout the supply chain organizations. Upon completion, students should be able to identify the supply chain units, describe the materials management processes and prepare for the APICS CPIM examination.	
<b>LOG 120 Global Logistics</b>	3 0 0 3	<b>LOG 220 Logistics Management</b>	3 0 0 3
Prerequisites: LOG 110	Corequisites: None	Prerequisites: LOG 110	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course examines logistics operations, processes and modes of transportation in an interdependent world economy. Emphasis is placed on freight forwarding operations, analyzing and selecting transportation modes and processing of import/export documentation. Upon completion, students should be able to arrange and coordinate the transportation of products globally. This course is a unique concentration requirement of the Logistics Management concentration in the Business		This course covers the management of the movement and storage of goods and analysis of total costs involved. Emphasis is placed on the monitoring of inventory using automated systems, managing the storage function, warehousing and distribution. Upon completion, students should be able to describe warehousing and facility layouts, identify material handling methods and apply inventory control procedures. This course is a unique concentration requirement of the Logistics Management concentration in the Business Administration program.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>LOG 230 Transportation Management</b> 3 0 0 3			
Prerequisites: LOG 110	Corequisites: None		
Effective Term: 2003*03			
This course covers the function of shippers and carriers in the transportation industry. Emphasis is placed on negotiating price and service requirements in the movement of goods, identifying areas of carrier liability and the methods for processing claims. Upon completion, students should be able to compare common carriers and company operated transportation for service and cost, interpret pricing structures and determine carrier liability. This course is a unique concentration requirement of the Logistics Management concentration in the Business Administration program.			
<b>LOG 235 Traffic Management</b> 3 0 0 3			
Prerequisites: LOG 125	Corequisites: None		
Effective Term: 2001*03			
This course examines the functions of traffic management and the effects of various traffic activities on an organization's supply chain. Emphasis is placed on the different staff functions of traffic management and current issues facing transportation managers. Upon completion, students should be able to perform transportation service provider comparisons and describe the impact of managerial traffic decisions to total supply chain costs.			
<b>LOG 240 Purchasing Logistics</b> 3 0 0 3			
Prerequisites: LOG 110	Corequisites: None		
Effective Term: 2001*03			
This course covers the various aspects of purchasing and their impact on materials management, supply chain, transportation and global logistics processes. Emphasis is placed on the different methods of electronic sourcing, negotiating and pricing principles, and on the internal and external considerations associated with internal logistics. Upon completion, students should be able to describe and apply the principles and terminology used in procurement including electronic data interchange services, purchasing and logistics systems.			
<b>LOG 250 Advanced Global Logistics</b> 3 2 0 4			
Prerequisites: LOG 125	Corequisites: None		
Effective Term: 2001*03			
This course covers the advanced application of global operations and logistics strategies, planning, technology, risk and management necessary to cope with the global			
business environment. Emphasis is placed on an in-depth understanding of global sourcing, shipping, tracking and e-logistics systems necessary to operate inbound/outbound logistics in a global market. Upon completion, students should be able to identify the different global markets and logistics technology available to process international inbound/outbound logistics transactions.			
<b>MACHINING</b>			
<b>MAC 111 Machining Technology I</b> 2 12 0 6			
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning and milling.			
<b>MAC 112 Machining Technology II</b> 2 12 0 6			
Prerequisites: MAC 111	Corequisites: None		
Effective Term: 1997*02			
This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning and milling.			
<b>MAC 113 Machining Technology III</b> 2 12 0 6			
Prerequisites: MAC 112	Corequisites: None		
Effective Term: 1997*02			
This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.			
<b>MAC 122 CNC Turning</b> 1 3 0 2			
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course introduces the programming, setup and operation of CNC turning centers. Topics include programming formats, control functions, program			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
editing, part production and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.		This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures.	
<b>MAC 124 CNC Milling</b>	1 3 0 2	<b>MAC 243 Die Making I</b>	2 6 0 4
Prerequisites: None	Corequisites: None	Prerequisites: MAC 112	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces the manual programming, setup and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.		This course introduces the principles and applications of die making. Topics include types, construction and application of dies. Upon completion, students should be able to design and build simple dies.	
<b>MAC 151 Machining Calculations</b>	1 2 0 2	<b>MAC 244 Die Making II</b>	1 9 0 4
Prerequisites: None	Corequisites: None	Prerequisites: MAC 243	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.		This course provides continued study in the application and use of dies. Emphasis is placed on the design and manufacturing of complex dies. Upon completion, students should be able to design and build complex dies. This course is a unique concentration requirement of the Tool, Die and Mold Making concentration in the Machining Technology program.	
<b>MAC 153 Compound Angles</b>	1 2 0 2	<b>MAC 245 Mold Construction I</b>	2 6 0 4
Prerequisites: None	Corequisites: None	Prerequisites: MAC 112	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces the application of basic types and uses of compound angles. Emphasis is placed on problem solving by tilting and rotating adjacent angles to resolve an unknown compound angle. Upon completion, students should be able to set up and develop compound angles on parts using problem-solving techniques. This course is a unique concentration requirement of the Tool, Die and Mold Making concentration in the Machining Technology program.		This course introduces the principles of mold making. Topics include types, construction and application of molds. Upon completion, students should be able to design and build simple molds.	
<b>MAC 214 Machining Technology IV</b>	2 12 0 6	<b>MAC 246 Mold Construction II</b>	1 9 0 4
Prerequisites: MAC 112	Corequisites: None	Prerequisites: MAC 245	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides advanced applications and practical experience in the manufacturing of complex parts. Emphasis is placed on inspection, gauging and the utilization of machine tools. Upon completion, students should be able to manufacture complex assemblies to specifications. This course is a unique concentration requirement of the Tool, Die and Mold Making concentration in the Machining Technology program.		This course provides continued study in the application and use of molds. Emphasis is placed on design and manufacturing of complex molds. Upon completion, students should be able to design and build complex molds. This course is a unique concentration requirement of the Tool, Die and Mold Making concentration in the Machining Technology program.	
<b>MAC 241 Jigs &amp; Fixtures I</b>	2 6 0 4	<b>MAC 247 Production Tooling</b>	2 0 0 2
Prerequisites: MAC 112	Corequisites: None	Prerequisites: MAC 111	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
		This course provides advanced study in tooling currently utilized in the production of metal parts. Emphasis is placed on the proper use of tooling used on CNC and other production machine tools. Upon completion,	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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students should be able to choose proper tool grades based on manufacturing requirements and troubleshoot carbide tooling problems.

## MATHEMATICS

### **MAT 060 Essential Mathematics** 3 2 0 4

Prerequisites: MAT 050 **or acceptable test scores**

Corequisites: None

Effective Term: 1997\*02

This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

### **MAT 070 Introductory Algebra** 3 2 0 4

Prerequisites: MAT 060 **or acceptable test scores**

Corequisites: RED 080 or ENG 085

Effective Term: 1997\*02

This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

### **MAT 075 Geometry** 3 2 0 4

Prerequisites: MAT 070 **or High School Algebra I with a B or better or acceptable test scores**

Corequisites: None

Effective Term: 1999\*03

This course is designed to provide the student with a basic understanding and working knowledge of the fundamentals of plane and solid geometry. Consideration is given to the undefined terms of geometry, geometrical definitions, properties, postulates, theorems and proofs. Topics include the study of congruence and similarity, parallel lines, triangles, quadrilaterals, polygons, circles, constructions, surface areas and volumes.

### **MAT 080 Intermediate Algebra** 3 2 0 4

Prerequisites: MAT 070 **or High School Algebra I with a B or better or acceptable test scores**

Corequisites: RED 080 or ENG 085

Effective Term: 1997\*02

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

### **MAT 090 Accelerated Algebra** 3 2 0 4

Prerequisites: MAT 060

Corequisites: RED 080 or RED 085

Effective Term: 1997\*02

This course covers algebraic concepts with emphasis on applications. Topics include those covered in MAT 070 and MAT 080. Upon completion, students should be able to apply algebraic concepts in problem solving using appropriate technology.

### **MAT 101 Applied Mathematics I** 2 2 0 3

Prerequisites: MAT 060, MAT 070, MAT 080, MAT 090, or MAT 095

Corequisites: None

Effective Term: 2005\*02

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study.

### **MAT 110 Mathematical Measurement** 2 2 0 3

Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 110, MAT 115, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 **or High School Algebra I or better or acceptable test scores**

Corequisites: None

Effective Term: 2005\*02

This course provides an activity-based approach to utilizing, interpreting and communicating data in a variety of measurement systems. Topics include accuracy, precision, conversion and estimation within metric, apothecary and avoirdupois systems; ratio and proportion; measures of central tendency and dispersion; and charting of data. Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing and communicating data.

Course Title	Hours Per Week Cl Lb Ca Cr	Course Title	Hours Per Week Cl Lb Ca Cr
<b>MAT 115 Mathematical Models</b> 2 2 0 3		<b>MAT 122 Algebra/Trigonometry II</b> 2 2 0 3	
Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 <b>or High School Algebra I or better or acceptable test scores</b>		Prerequisites: MAT 161, MAT 171, or MAT 175	
Corequisites: None		Corequisites: None	
Effective Term: 1997*02		Effective Term: 2005*02	
This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, functional notation, linear functions and their groups, probability, sampling techniques, scatter plots and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics and work confidently, collaboratively and independently. This course is also available through the Virtual Learning Community (VLC).		This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis and trigonometry. Topics include exponential and logarithmic functions, translation and scaling of functions, Sine Law, Cosine Law, vectors and statistics. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.	
<b>MAT 120 Geometry and Trigonometry</b> 2 2 0 3		<b>MAT 140* Survey of Mathematics</b> 3 0 0 3	
Prerequisites: MAT 070, MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 <b>or High School Algebra I or better or acceptable test scores</b>		Prerequisites: MAT 070, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 <b>and MAT 080 or High School Algebra I or better or acceptable test scores</b>	
Corequisites: None		Corequisites: None	
Effective Term: 1995*02		Effective Term: 2005*02	
This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, right triangle trigonometry and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology.		This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically and be able to work collaboratively and independently. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>MAT 121 Algebra and Trigonometry</b> 2 2 0 3		<b>MAT 141* Mathematical Concepts I</b> 3 0 3	
Prerequisites: MAT 070, MAT 080, MAT 090 or MAT 095 <b>or High School Algebra I with a B or better or acceptable test scores</b>		Prerequisites: MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175	
Corequisites: None		Corequisites: None	
Effective Term: 2005*02		Effective Term: 2005*02	
This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation and solving of algebraic and radical functions; complex numbers; right triangle trigonometry; systems of equations; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.		This course is the first of a two-course sequence that develops a deeper understanding and appreciation of the basic concepts of mathematics. Emphasis is placed on sets, logic, number bases, elementary number theory, introductory algebra, measurement including metrics, and problem solving. Upon completion, students should be able to communicate orally and in writing these basic mathematical concepts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
		<b>MAT 141A* Mathemat Concepts I Lab</b> 0 2 1	
		Prerequisites: MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175	
		Corequisites: MAT 141	
		Effective Term: 2005*02	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<p>This course is a laboratory for MAT 141. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.</p>		<p>approach to algebraic topics used in problem solving. Emphasis is placed on applications involving equations and inequalities, polynomials, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. A graphing calculator will be required in this course. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics for the associate in arts degree. This course is also available through the Virtual Learning Community (VLC).</p>	
<b>MAT 151* Statistics I</b> 3 0 0 3 Prerequisites: MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 <b>or High School Algebra II with a B or better or acceptable test scores</b> Corequisites: None Effective Term: 2005*02		<b>MAT 162* College Trigonometry</b> 3 0 0 3 Prerequisites: MAT 161 Corequisites: None Effective Term: 2000*01 This course provides an integrated technological approach to trigonometric applications used in problem solving. Emphasis is placed on applications involving trigonometric ratios, right triangles, oblique triangles, trigonometric functions, graphing vectors and complex numbers. Upon completion, students should be able to apply the above principles of trigonometry to problem solving and communication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>MAT 151A* Statistics I Lab</b> 0 2 0 1 Prerequisites: MAT 080, MAT 090, MAT 095, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 <b>or High School Algebra II with a B or better or acceptable test scores</b> Corequisites: MAT 151 Effective Term: 2005*02 This course is a laboratory for MAT 151. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams and communicate effectively. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		<b>MAT 175* Precalculus</b> 4 0 0 4 Prerequisites: <b>High School Algebra III/Trigonometry with a B or better</b> Corequisites: None Effective Term: 1998*03 This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>MAT 161* College Algebra</b> 3 0 0 3 Prerequisites: MAT 080, MAT 090, MAT 095 <b>or High School Algebra II with a B or better or acceptable test scores</b> Corequisites: None Effective Term: 2005*02 This course provides an integrated technological		<b>MAT 175A* Precalculus Lab</b> 0 2 0 1 Prerequisites: <b>High School Algebra III/Trigonometry with a B or better</b> Corequisites: MAT 175 Effective Term: 1998*03 This course is a laboratory for MAT 175. Emphasis is	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams and communicate effectively. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.		Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>MAT 223 Applied Calculus</b>	2 2 0 3	<b>MAT 272* Calculus II</b>	3 2 0 4
Prerequisites: MAT 122	Corequisites: None	Prerequisites: MAT 271	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides an introduction to the calculus concepts of differentiation and integration by way of application and is designed for engineering technology students. Topics include limits, slope, derivatives, related rates, areas, integrals and applications. Upon completion, students should be able to demonstrate an understanding of the use of calculus and technology to solve problems and to analyze and communicate results.		This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>MAT 263* Brief Calculus</b>	3 0 0 3	<b>MAT 273* Calculus III</b>	3 2 0 4
Prerequisites: MAT 161, MAT 171 or MAT 175		Prerequisites: MAT 272	Corequisites: None
Corequisites: None		Effective Term: 1997*02	
Effective Term: 2005*02		This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
This course introduces concepts of differentiation and integration and their applications to solving problems; the course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.		<b>MAT 280 Linear Algebra</b>	3 0 0 3
		Prerequisites: MAT 271	Corequisites: None
		Effective Term: 1997*02	
<b>MAT 271* Calculus I</b>	3 2 0 4	This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and the appropriate use of linear algebra models to solve application problems. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.	
Prerequisites: MAT 172 or MAT 175			
Corequisites: None			
Effective Term: 1997*02			
This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. This course has been approved to satisfy the Comprehensive			

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>MAT 285* Differential Equations</b>	3	0	0	3	This course introduces a variety of manufacturing materials and common processing techniques. Emphasis is placed on the processing, testing, and application of materials such as wood, metals, plastics, ceramics and composites. Upon completion, students should be able to demonstrate an understanding of fundamental engineering applications for a variety of materials, including their process capabilities and limitations.				
Prerequisites: MAT 272									
Corequisites: None									
Effective Term: 1997*02									
This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear higher-order and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, student should be able to use differential equations to model physical phenomena, solve the equations and use the solutions to analyze the phenomena. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.									
<b>MECHANICAL</b>									
<b>MEC 110 Intro to CAD/CAM</b>	1	2	0	2	<b>MEC 161 Manufacturing Processes I</b>	3	0	0	3
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 2005*01				
This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.					This course provides the fundamental principles of value-added processing of materials into usable forms for the customer. Topics include material properties and traditional and non-traditional manufacturing processes. Upon completion, students should be able to specify appropriate manufacturing processing for common engineering materials.				
<b>MEC 111 Machine Processes I</b>	1	4	0	3	<b>MEC 161A Mfg Proc I Lab</b>	0	3	0	1
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: MEC 161				
Effective Term: 2005*01					Effective Term: 1997*02				
This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to safely machine simple parts to specified tolerances.					This course is a laboratory for MEC 161. Emphasis is placed on experiences that enhance the materials presented in MEC 161. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in MEC 161.				
<b>MEC 130 Mechanisms</b>	2	2	0	3	<b>MEC 172 Intro to Metallurgy</b>	2	2	0	3
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 2002*03					Effective Term: 1997*02				
This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems					This course covers the production, properties, testing, classification, microstructure, and heat-treating effects of ferrous and non-ferrous metals. Topics include the iron-carbon phase diagram, ITT diagram, ANSI code, quenching, senescing and other processes concerning metallurgical transformations. Upon completion, students should be able to understand the iron-carbon phase diagram, ITT diagram, microstructure images and other phenomena concerning the behavior of metals.				
<b>MEC 145 Mfg Materials I</b>	2	3	0	3	<b>MEC 180 Engineering Materials</b>	2	3	0	3
Prerequisites: None					Prerequisites: None				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 2005*01				
This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics,									

Course Title	Hours Per Week				Course Title	Hours Per Week					
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr		
composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.											
<b>MEC 237 Instr and Control Systems</b>	3	2	0	4	<b>MED 118 Medical Law and Ethics</b>	2	0	0	2		
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None					
Effective Term: 2005*01					Effective Term: 1997*02						
This course covers basic principles of instrumentation and control systems. Emphasis is placed upon the application of electrical, electronic, and pneumatic instruments and control systems in mechanical systems. Upon completion, students should be able to understand the application of switches, sensors, transducers, and other control components in circuits for controlling motors, servomechanisms, and other mechanical devices.					This course introduces basic anatomy and physiology. Emphasis is placed on the relationship between body structure and function and the procedures common to health care. Upon completion, students should be able to identify body system components and functions relating this knowledge to the delivery of health care. <i>Restricted to MED programs of study.</i>						
<b>MEC 251 Statics</b>		2	2	0	3	<b>MED 120 Survey of Medical Terminology</b>		2	0	0	2
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None					
Effective Term: 2005*01					Effective Term: 1997*02						
This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.					This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional. <i>Restricted to MED and MOA programs of study.</i>						
<b>MEC 252 Strength of Materials</b>		2	2	0	3	<b>MED 121 Medical Terminology I</b>		3	0	0	3
Prerequisites: MEC 251	Corequisites: None				Prerequisites: None	Corequisites: None					
Effective Term: 1997*02					Effective Term: 1997*02						
This course covers the principles and concepts of stress analysis. Topics include centroids, moments of inertia, shear/moment diagrams, and stress and strain. Upon completion, students should be able to perform a stress and strain analysis on structural components.					This course introduces the vocabulary, abbreviations and symbols used in the language of medicine. Emphasis is placed on building medical terms using prefixes, suffixes and word roots. Upon completion, students should be able to pronounce, spell and define accepted medical terms.						
<b>MEDICAL ASSISTING</b>											
<b>MED 110 Orientation to Med Assist</b>	1	0	0	1	<b>MED 122 Medical Terminology II</b>		3	0	0	3	
Prerequisites: None	Corequisites: None				Prerequisites: MED 121	Corequisites: None					
Effective Term: 1997*02					Effective Term: 1997*02						
This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting. <i>Restricted to MED programs of study.</i>					This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions and treatment of selected						
<b>MED 116 Introduction to A &amp; P</b>	3	2	0	4							
Prerequisites: None	Corequisites: None										
Effective Term: 1998*03											

Course Title	Hours Per Week Cl Lb Cn Cr				Course Title	Hours Per Week Cl Lb Cn Cr			
pronounce, spell and define medical terms as related to selected body systems and their pathological disorders.					demonstrate competence in exam room procedures. <i>Restricted to MED programs of study.</i>				
<b>MED 130 Admin Office Proc I</b>	1	2	0	2	<b>MED 150 Laboratory Procedures I</b>	3	4	0	5
Prerequisites: <b>MED 130</b>	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1998*03					Effective Term: 1998*03				
This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment. <i>Restricted to MED programs of study. Medical Assisting students should take MED 130A and Medical Office Administration students should take MED 130B. MOA students, see your advisor.</i>					This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics. <i>Restricted to MED programs of study.</i>				
<b>MED 131 Admin Office Proc II</b>	1	2	0	2	<b>MED 240 Exam Room Procedures II</b>	3	4	0	5
Prerequisites: None	Corequisites: None				Prerequisites: MED 140	Corequisites: None			
Effective Term: 1998*03					Effective Term: 1997*02				
This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel. <i>Restricted to MED and MOA programs of study.</i>					This course is designed to expand and build upon skills presented in MED 140. Emphasis is placed on advanced exam room procedures. Upon completion, students should be able to demonstrate enhanced competence in selected exam room procedures. <i>Restricted to MED programs of study.</i>				
<b>MED 134 Medical Transcription</b>	2	2	0	3	<b>MED 260 MED Clinical Externship</b>	0	0	15	5
Prerequisites: MED 121 and <b>MED 122</b>					Prerequisites: <b>MED 131, MED 150, MED 240</b>				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1998*03				
This course provides the basic knowledge, understanding, and skills required to complete medical reports and transcribe medical dictation. Emphasis is placed on correct punctuation, capitalization and spelling. Upon completion, students should be able to demonstrate competence in medical transcription. <i>Restricted to MED and MOA programs of study.</i>					This course provides the opportunity to apply clinical, laboratory and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional. <i>Restricted to MED programs of study.</i>				
<b>MED 140 Exam Room Procedures I</b>	3	4	0	5	<b>MED 262 Clinical Perspectives</b>	1	0	0	1
Prerequisites: None	Corequisites: None				Prerequisites: <b>MED 131, MED 150, MED 240</b>				
Effective Term: 1998*03					Corequisites: None				
This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs and medical emergencies. Upon completion, students should be able to					This course is designed to explore personal and occupational responsibilities of the practicing medical assistant. Emphasis is placed on problems encountered during externships and development of problem-solving skills. Upon completion, students should be able to demonstrate courteous and diplomatic behavior when solving problems in the medical facility. <i>Restricted to MED programs of study.</i>				

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>MED 270 Symptomatology</b>	2 2 0 3		
Prerequisites: None	Corequisites: None		
Effective Term: 1998*03			
This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures and screening test results. Upon completion, students should be able to recognize how certain symptoms relate to specific disease, recognize emergency situations and take appropriate actions.		This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.	
<b>MED 272 Drug Therapy</b>	3 0 0 3	<b>MKT 224 International Marketing</b>	3 0 0 3
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 2001*03		Effective Term: 1997*02	
This course focuses on major drug groups, including their side effects, interactions, methods of administration and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of and document the most commonly used medications in a physician's office. <i>Restricted to MED programs of study.</i>		This course covers the basic concepts of international marketing activity and theory. Topics include product promotion, placement and pricing strategies in the international marketing environment. Upon completion, students should be able to demonstrate a basic understanding of the concepts covered.	
<b>MED 276 Patient Education</b>	1 2 0 2	<b>MEDICAL LABORATORY</b>	
Prerequisites: MED 131, MED 150, MED 240		<b>MLT 110** Intro to MLT</b>	2 3 0 3
Corequisites: None		Prerequisites: None	Corequisites: None
Effective Term: 1998*03		Effective Term: 1998*03	
This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively and act as a liaison between the patient and community agencies. <i>Restricted to MED programs of study.</i>		This course introduces all aspects of the medical laboratory profession. Topics include health care/laboratory organization, professional ethics, basic laboratory techniques, safety, quality assurance and specimen collection. Upon completion, students should be able to demonstrate a basic understanding of laboratory operations and be able to perform basic laboratory skills.	
<b>MARKETING AND RETAILING</b>		<b>MLT 111** Urinalysis &amp; Body Fluids</b>	1 3 0 2
<b>MKT 120 Principles of Marketing</b>	3 0 0 3	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1998*03	
Effective Term: 1997*02		This course introduces the laboratory analysis of urine and body fluids. Topics include physical, chemical, and microscopic examination of the urine and body fluids. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting urinalysis and body fluid tests.	
This course introduces principles and problems of marketing goods and services. Topics include promotion, placement and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.		<b>MLT 120** Hematology/Hemostasis I</b>	3 3 0 4
<b>MKT 223 Customer Service</b>	3 0 0 3	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1998*03	
Effective Term: 1997*02		This course introduces the theory and technology used in analyzing blood cells and the study of hemostasis. Topics include hematology, hemostasis and related laboratory testing. Upon completion, students should be able to demonstrate theoretical comprehension of hematology/hemostasis, perform diagnostic techniques and correlate laboratory findings with disorders.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>MLT 125** Immunohematology I</b>	4 3 0 5	<b>MLT 216** Professional Issues</b>	0 2 0 1
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1998*03		Effective Term: 1998*03	
This course introduces the immune system and response; basic concepts of antigens, antibodies and their reactions; and applications in transfusion medicine and serodiagnostic testing. Emphasis is placed on immunological and blood banking techniques including concepts of cellular and humoral immunity and pretransfusion testing. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting routine immunological and blood bank procedures.		This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination.	
<b>MLT 130** Clinical Chemistry I</b>	3 3 0 4	<b>MLT 240** Special Clin Microbiology</b>	2 3 0 3
Prerequisites: None	Corequisites: None	Prerequisites: MLT 140	Corequisites: None
Effective Term: 1998*03		Effective Term: 1997*02	
This course introduces the quantitative analysis of blood and body fluids and their variations in health and disease. Topics include clinical biochemistry, methodologies, instrumentation and quality control. Upon completion, students should be able to demonstrate theoretical comprehension of clinical chemistry, perform diagnostic techniques and correlate laboratory findings with disorders.		This course is designed to introduce special techniques in clinical microbiology. Emphasis is placed on advanced areas in microbiology. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting specialized clinical microbiology procedures.	
<b>MLT 140** Intro to Microbiology</b>	2 3 0 3	<b>MLT 257** MLT Practicum I</b>	0 0 24 8
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1998*03		Effective Term: 1998*03	
This course introduces basic techniques and safety procedures in clinical microbiology. Emphasis is placed on the morphology and identification of common pathogenic organisms, aseptic technique, staining techniques and usage of common media. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting basic clinical microbiology procedures.		This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.	
<b>MLT 215** Professional Issues</b>	1 0 0 1	<b>MLT 269** MLT Practicum II</b>	0 0 33 11
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1998*03		Effective Term: 1998*03	
This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination.		This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.	
<b>MAINTENANCE</b>			
<b>MNT 110 Intro to Maint Procedures</b>		1 3 0 2	
Prerequisites: None		Corequisites: None	
Effective Term: 1997*02			
This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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### **MNT 111 Maintenance Practices** 2 2 0 3

Prerequisites: None

Corequisites: None

Effective Term: 2002\*03

This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure analysis, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods.

### **MNT 130 Control Systems** 2 4 0 4

Prerequisites: None

Corequisites: None

Effective Term: 2002\*03

This course introduces industrial control systems which include devices such as motor controls, programmable logic controllers (PLCs), and other control components. Topics include schematics and ladder logic structures, related to PLCs, I/O identification, equipment interface, motor controls, and other electrical control devices. Upon completion, students should be able to safely install, maintain, troubleshoot and repair electrical control systems.

### **MNT 131 Metalworking Processes** 2 3 0 3

Prerequisites: None

Corequisites: None

Effective Term: 2005\*01

This course introduces the standard practices that are found in a metal workshop. Topics include the proper care/use of basic hand tools and precision measuring instruments and layout procedures/operation of lathes, drill presses, grinders, milling machines, and power saws. Upon completion, students should be able to work safely in the metal workshop and use basic metalworking equipment.

### **MNT 160 Industrial Fabrication** 1 3 0 2

Prerequisites: None

Corequisites: None

Effective Term: 2002\*03

This course covers the necessary techniques to fabricate and assemble basic items common in industrial environments. Emphasis is placed on students being able to create basic items such as frames, guards, supports, and other components commonly used in industry. Upon completion, students should be able to safely fabricate and assemble selected items within specifications.

## **MAGNETIC RESONANCE IMAGING**

### **MRI 210 MRI Physics and Equipment** 3 0 0 3

Prerequisites: **Enrollment in CT/MRI diploma or MRI certificate program**

Corequisites: None

Effective Term: 1998\*03

This course covers the physical principles of image formation, data acquisition and image processing in magnetic resonance imaging. Emphasis is placed on instrumentation, fundamentals, pulse sequences, data manipulation, imaging parameters, options and their effects on image quality. Upon completion, students should be able to understand the principles behind image formation, data acquisition and image processing in magnetic resonance imaging.

### **MRI 211 MRI Procedures** 4 0 0 4

Prerequisites: **Enrollment in CT/MRI diploma or MRI certificate program**

Corequisites: None

Effective Term: 1998\*03

This course covers patient care, magnetic field safety, cross-sectional anatomy, contrast media and scanning procedures in magnetic resonance imaging. Emphasis is placed on patient assessment and monitoring, safety precautions, contrast agents' use, methods of data acquisition and identification of cross-sectional anatomy. Upon completion, students should be able to integrate all facets of imaging procedures in magnetic resonance imaging.

### **MRI 212 MR Cardiac Physics & Proc** 4 0 0 4

Prerequisites: MRI 210 or MRI 211

Corequisites: None

Effective Term: 2002\*03

This course is designed to cover the advanced physical principles of data acquisition and image processing in cardiac MR. Topics will include but not limited to: cross-sectional anatomy of the heart, contrast usage and scanning procedures of the cardiac system. Upon completion, students should be able to understand and assume duties and responsibilities involved with cardiac MR imaging.

### **MRI 223 MRI Clinical Practicum** 0 0 9 3

Prerequisites: MRI 226, MRI, 228, MRI 231

**Enrollment in CT/MRI diploma or MRI certificate program**

Corequisites: None

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
Effective Term: 1998*03		Effective Term: 1998*03	
This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.		This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.	
<b>MRI 224 MRI Clinical Practicum</b> 0 0 12 4		<b>MRI 228 MRI Clinical Practicum</b> 0 0 24 8	
Prerequisites: <b>Enrollment in CT/MRI diploma or MRI certificate program</b>		Prerequisites: MRI 226, MRI, 228, MRI 231	
Corequisites: None		<b>Enrollment in CT/MRI diploma or MRI certificate program</b>	
Effective Term: 1998*03		Corequisites: None	
This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.		Effective Term: 1998*03	
<b>MRI 225 MRI Clinical Practicum</b> 0 0 12 4		This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.	
Prerequisites: <b>Enrollment in CT/MRI diploma or MRI certificate program</b>		<b>MRI 231 MRI Clinical Practicum</b> 0 0 33 11	
Corequisites: None		Prerequisites: MRI 226, MRI, 228, MRI 231	
Effective Term: 1998*03		<b>Enrollment in CT/MRI diploma or MRI certificate program</b>	
This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.		Corequisites: None	
<b>MRI 226 MRI Clinical Practicum</b> 0 0 18 6		Effective Term: 1998*03	
Prerequisites: MRI 226, MRI, 228, MRI 231		This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.	
<b>Enrollment in CT/MRI diploma or MRI certificate program</b>			
Corequisites: None			
Effective Term: 1998*03			
This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.			
<b>MRI 227 MRI Clinical Practicum</b> 0 0 21 7			
Prerequisites: <b>Enrollment in CT/MRI diploma or MRI certificate program</b>			
Corequisites: None			

## THERAPEUTIC MASSAGE

**MTH 110 Fundamentals of Massage** 6 12 0 10

Prerequisites: **ENG 090, MAT 060**

Corequisites: None

Effective Term: 2005\*03

This course introduces concepts basic to the role of the massage therapist. Emphasis is placed on beginning theory and techniques of body work as well as skill in therapeutic touch. Upon completion of the course, the student should be able to apply basic practical massage therapy skills.

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>MTH 120 Ther Massage Applications</b> 6 12 0 10			
Prerequisites: MTH 110	Corequisites: None		
Effective Term: 2005*03			
This course provides an expanded knowledge and skill base for the massage therapist. Emphasis is placed on selected therapeutic approaches throughout the life span. Upon completion, students should be able to perform entry level therapeutic massage on various populations.			
<b>MTH 125 Ethics of Massage</b> 2 0 0 2		<b>MUS 112* Introduction to Jazz</b> 3 0 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 2005*03		Effective Term: 1997*02	
This course is designed to explore issues related to the practice of massage therapy. Emphasis is placed on ethical, legal, professional and political issues. Upon completion, students should be able to discuss issues relating to the practice of massage therapy, client/therapist relationships as well as ethical issues.		This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.	
<b>MTH 210 Adv Skills of Massage</b> 4 12 0 8		<b>Nanotechnology</b>	
Prerequisites: MTH 120	Corequisites: None	<b>NAN 111 Intro to Nanotechnology</b> 3 0 0 3	
Effective Term: 2005*03		Prerequisites: None	
This course provides knowledge and skills in diverse body work modalities. Emphasis is placed on selected techniques such as Neuromuscular Therapy, Sports Massage, Soft Tissue Release, Spa Approaches, Oriental Therapies and energy techniques. Upon completion, students should be able to perform basic skills in techniques covered.		Effective Term: 2004*03	
		This course introduces current technology, products, and careers in nanotechnology. Topics include length scales, material properties, techniques of characterization and fabrication, and economic forces. Upon completion, students should be able to investigate, describe, and report on devices and concepts of contemporary nanotechnology.	
<b>MTH 220 Outcome-Based Massage</b> 4 9 0 7		<b>NAN 112 Fundamentals of Nanosci</b> 3 0 0 3	
Prerequisites: MTH 120	Corequisites: None	Prerequisites: CHM 151 and BIO 111	
Effective Term: 2005*03		Corequisites: PHY 131	
This course provides knowledge and skills in more complex body works modalities. Emphasis is placed on developing advanced skills in outcome-based Massage. Upon completion, students should be able to perform basic skills in techniques covered.		Effective Term: 2004*03	
		This course is designed to describe the behavior of matter at both the atomic and macroscopic levels by bringing together the sciences of biology, chemistry, and physics at the nanoscopic level. Topics to be surveyed include polymers, thermodynamics, spectra, quantum physics, biochemistry, and DNA. Upon completion, students should be able to investigate, describe and report on the scientific fundamentals of nanoscience.	
<b>MUSIC</b>		<b>NAN 131 Materials, Safety, &amp; Equip</b> 2 0 0 2	
<b>MUS 110* Music Appreciation</b> 3 0 0 3		Prerequisites: NAN 112	
Prerequisites: None	Corequisites: None	Corequisites: None	
Effective Term: 1997*02		Effective Term: 2004*03	
This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. This course has		This course is designed to prepare students to safely process materials in the nanotechnology laboratory. Topics include materials including substrates, liquids, and cells; hazards from fumes, contamination, and mixing, and inhalation; and atomic-force and electron	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
microscopes and fabrication equipment. Upon completion, students should be able to demonstrate an understanding of properties of materials, the procedures employed to address hazards, and the operation of specified equipment.									
<b>NAN 132    Controlled Materials</b>	2	0	0	2	<b>NAN 244    Electron Microscopy</b>	3	2	0	4
Prerequisites: NAN 131	Corequisites: None				Prerequisites: NAN 131	Corequisites: None			
Effective Term: 2004*03					Effective Term: 2004*03				
This course address issues concerning long-range effects of applications of the creation, application, and implementation of nanotechnology. Topics include EPA regulation, animal models, human tests, and disease. Upon completion, students should be able to investigate, describe, and report on the environmental impact of regulated materials.									
<b>NAN 241    Nanofab of Mixtures</b>	3	2	0	4	<b>NETWORKING</b>				
Prerequisites: NAN 131	Corequisites: None				<b>NET 110    Data Comm/Networking</b>	2	2	0	3
Effective Term: 2004*03					Prerequisites: None	Corequisites: None			
This course provides experience with mixing nanoparticles into macroscopic samples to create value-added products. Topics include blending nanoparticles into mixtures and testing methods including: shear and tensile strength, elastic moduli, thermal and electrical transport, thermal gravitational analysis, and optical techniques. Upon completion, students should be able to complete independent laboratory projects on nanoscopic surface characterization and create reports including explanations of both theory and procedures.									
<b>NAN 242    Nanofab of Thin Films</b>	3	2	0	4	Effective Term: 1997*02				
Prerequisites: NAN 131	Corequisites: None				This course introduces data communication and networking. Topics include telecommunication standards, protocols, equipment, network topologies, communication software, LANs, WANs, the Internet and network operating systems. Upon completion, students should be able to demonstrate understanding of the fundamentals of telecommunication and networking.				
Effective Term: 2004*03					<b>NET 112    Security Fundamentals &amp; Policies</b>	3	0	0	3
This course provides experience with coating surfaces with thin films of nanoparticles to create value-added products. Topics include phase transitions, growth of crystal and amorphous materials; structural, mechanical, electrical, and optical properties; and testing methods including thermal conductivity, ellipsometry, and time-of-flight charge carrier mobility. Upon completion, students should be able to complete independent laboratory projects on nanoscopic surface characterization and create reports including explanations of both theory and procedures.									
Prerequisites: NAN 131	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 2004*03					Effective Term: 2002*03				
This course provides experience characterizing and mapping the surfaces of materials on the nanoscopic									
<b>NAN 243    Atomic-Force Microscopy</b>	3	2	0	4	scale with atomic force microscopes (AFM). Topics include qualitative and quantitative mapping of surface properties, computer visualization techniques, and atomic surface modification. Upon completion, students should be able to complete independent laboratory projects on nanoscopic surface characterization and create reports including explanations of both theory and procedures.				
Prerequisites: NAN 131	Corequisites: None				This course provides experience characterizing and mapping the surfaces of materials on the nanoscopic scale with electron microscopes. Topics include qualitative and quantitative mapping of surface properties scanning electron microscopes (SEM) and transmission electron microscopes (TEM). Upon completion, students should be able to complete independent laboratory projects on nanoscopic surface characterization and create reports including explanations of both theory and procedures.				
Effective Term: 2004*03					This course provides experience characterizing and mapping the surfaces of materials on the nanoscopic scale with electron microscopes. Topics include qualitative and quantitative mapping of surface properties scanning electron microscopes (SEM) and transmission electron microscopes (TEM). Upon completion, students should be able to complete independent laboratory projects on nanoscopic surface characterization and create reports including explanations of both theory and procedures.				

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>NET 120 Network Install/Admin I</b>	2 2 0 3		
Prerequisites: NET 110	Corequisites: None		
Effective Term: 1997*02			
This course covers the installation and administration of network hardware and system software. Topics include network topologies, various network operating systems, server and workstation installation and configuration, printer services and connectivity options. Upon completion, students should be able to perform basic installation and administration of departmental networks.		students should be able to prepare the initial router configuration files, as well as enable, verify and configure IP addresses. <i>This is the second of four semesters of the Cisco CCNA certification program.</i>	
<b>NET 122 Secure Communications</b>	2 2 0 3	<b>NET 145 Introduction to Linux</b>	2 2 0 3
Prerequisites: NET 112 and CIS 173 or CIS 282 or NET 110		Prerequisites: None	Corequisites: None
Corequisites: None		Effective Term: 2001*03	
Effective Term: 2004*01		This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.	
This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL and SSH. Upon completion, students should be able to implement secure data transmission technologies. <b><i>This course is restricted at state level and is limited to the students currently admitted to the Information Systems Security program. No overrides authorized!</i></b>		<b>NET 155 Linux System Administrat</b>	2 2 0 3
		Prerequisites: NET 145	Corequisites: None
		Effective Term: 2001*03	
		This course introduces the Linux file system, group administration and system hardware controls. Topics include Configure X, Gnome, KDE, basic memory, processes and security. Upon completion, students should be able to perform system administration tasks including installation, configuring and attaching a new Linux workstation to an existing network.	
<b>NET 125 Routing and Switching I</b>	1 4 0 3	<b>NET 165 Linux Networking/Security</b>	2 2 0 3
Prerequisites: None	Corequisites: None	Prerequisites: NET 155	Corequisites: None
Effective Term: 1999*03		Effective Term: 2001*03	
This course introduces the OSI model, network topologies, IP addressing, and subnet masks, simple routing techniques and basic switching terminology. Topics include the basic functions of the seven layers of the OSI model, different classes of IP addressing and subnetting, router login scripts. Upon completion, students should be able to list the key internetworking functions of the OSI Networking Layer and how they are performed in a variety of router types. <b><i>This is the first of four semesters of the Cisco CCNA certification program.</i></b>		This course includes skill-building in configuring common network services and security administration using Linux. Topics include server-side setup, configuration, basic administration of common networking services and security administration using Linux. Upon completion, students should be able to setup a Linux server and configure common network services including security requirements.	
<b>NET 126 Routing and Switching II</b>	1 4 0 3	<b>NET 175 Wireless Technology</b>	2 2 0 3
Prerequisites: NET 125	Corequisites: None	Prerequisites: NET 110 or ELN 237	
Effective Term: 1999*01		Corequisites: None	
This course introduces router configurations, router protocols, switching methods and hub terminology. Topics include the basic flow control methods, router startup commands, manipulation of router configuration files, IP and data link addressing. Upon completion,		Effective Term: 2005*01	
		This course introduces the student to wireless technology and inoperability with different communication protocols. Topics include Wireless Application Protocol (WAP), Wireless Mark-up language (WML), link manager, service discovery protocol, transport layer and frequency band. Upon completion,	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
students should be able to discuss in written and oral form protocols and procedures required for different wireless applications.									
<b>NET 220 Network Install/Admin II</b>	2	2	0	3	<b>NET 230 Wide Area Networking</b>	2	2	0	3
Prerequisites: NET 120	Corequisites: None				Prerequisites: NET 110	Corequisites: None			
Effective Term: 2001*03					Effective Term: 2001*03				
This course covers advanced network installation and administration concepts and procedures. Topics include basic network troubleshooting techniques, advanced print services, traffic management, security, backup, multiple protocol support, server configuration options, fault tolerance and inter-network options. Upon completion, students should be able to demonstrate understanding of advanced management of departmental networks.					This course is designed to introduce significant aspects of network interconnectivity. Topics include LAN-to-LAN, LAN-to-host, LAN-to-WAN connectivity, Internet connections and voice-video-data transmission. Upon completion, students should be able to demonstrate an understanding of wide area networking.				
<b>NET 222 Security Administration I</b>	2	2	0	3	<b>NET 231 Intrusion Detection</b>	2	2	0	3
Prerequisites: NET 112 and CIS 173 or CIS 282 or NET 110	Corequisites: None				Prerequisites: NET 222	Corequisites: None			
Effective Term: 2004*01					Effective Term: 2004*01				
This course provides an overview of security administration and fundamentals of designing security architectures. Topics include TCP/IP concepts, protocols, network traffic analysis, monitoring and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.					This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products and planning and placements of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host based systems.				
<b>NET 225 Adv Router &amp; Switching I</b>	1	4	0	3	<b>NET 232 Security Administration II</b>	2	2	0	3
Prerequisites: NET 126	Corequisites: None				Prerequisites: NET 222	Corequisites: None			
Effective Term: 1999*01					Effective Term: 2002*03				
This course introduces advanced router configurations, advanced LAN switching theory and design, VLANs, Novell IPX and threaded case studies. Topics include router elements and operations, adding routing protocols to a configuration, monitoring IPX operations on the router, LAN segmentation and advanced switching methods. Upon completion, students should be able to describe LAN and network segmentation with bridges, routers and switches and describe a virtual LAN. <i>This is the third of four semesters of the Cisco CCNA certification program.</i>					This course provides the skills necessary to design and implement information security controls. Topics include advanced TCP/IP concepts, network vulnerability analysis and monitoring. Upon completion, students should be able to distinguish between normal, anomalous network traffic, identify common network attack patterns and implement security solutions.				
<b>NET 226 Adv Router &amp; Switching II</b>	1	4	0	3	<b>NET 233 Defense In-Depth</b>	2	2	0	3
Prerequisites: NET 225	Corequisites: None				Prerequisites: NET 222 and CIS 279 or NET 155				
Effective Term: 1999*01					Corequisites: NET 232				
This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced					routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, channels and function groups, describe the Spanning Tree protocol. <i>This is the final semester of four semesters of the Cisco CCNA certification program.</i>				
					Effective Term: 2004*01				
					This course introduces students to the concepts of defense in-depth, a security industry best practice. Topics include firewalls, backup systems, redundant systems, disaster recovery and incident handling. Upon completion, students should be able to plan effective information security defenses, backup systems and disaster recovery procedures. <b>This course is</b>				

Course Title	Hours Per Week Cl Lb Ca Cr	Course Title	Hours Per Week Cl Lb Ca Cr
<b>restricted at state level and is limited to the students currently admitted to the Information Systems Security program. No overrides authorized.</b>		networks. Topics include building multi-layer networks, controlling overhead traffic in growing routed networks and router capabilities used to control traffic over LANs and WANs. Upon completion, students should be able to design; implement; and improve traffic flow, reliability, redundancy and performance in enterprise networks.	
<b>NET 240 Network Design</b>	3 0 0 3	<b>NET 271 Multi-Layer Networks</b>	1 4 0 3
Prerequisites: NET 110	Corequisites: None	Prerequisites: NET 270	Corequisites: None
Effective Term: 2001*03		Effective Term: 2001*03	
This course covers the principles of the design of LANs and WANs. Topics include network architecture, transmission systems, traffic management, bandwidth requirements, Internet working devices, redundancy and broad-band versus base-band systems. Upon completion, students should be able to design a network to meet specified business and technical requirements.		This course covers building campus networks using multi-layer switching technologies over a high-speed Ethernet. Topics include improving IP routing performance with multi-layer switching, implementing fault tolerance routing and managing high bandwidth broadcast while controlling IP multi-cast access to networks. Upon completion, students should be able to install and configure multi-layer enterprise networks and determine the required router configurations to support new services and applications.	
<b>NET 250 Advanced Networks I</b>	2 2 0 3	<b>NET 272 Remote Access Networks</b>	1 4 0 3
Prerequisites: NET 110	Corequisites: None	Prerequisites: NET 271	Corequisites: None
Effective Term: 2001*03		Effective Term: 2001*03	
This course covers advanced network management, security and server issues. Topics include server types (file, database, FTP, e-mail, CD-ROM), encryption, authentication, remote monitoring, viruses and disaster recovery. Upon completion, students should be able to perform advanced monitoring and management of various types of servers and networks.		This course covers how to build a remote access network to interconnect central sites to branch offices, home offices and telecommuters. Topics include enabling on-demand/permanent connections to the central site, scaling and troubleshooting remote access networks and maximizing bandwidth utilization over remote links. Upon completion, students should be able to assemble and configure equipment, establish WAN connections, enable protocols/technologies, allow traffic between sites and implement accessible access control.	
<b>NET 251 Advanced Networks II</b>	2 2 0 3	<b>NET 273 Internetworking Support</b>	1 4 0 3
Prerequisites: NET 250	Corequisites: None	Prerequisites: NET 272	Corequisites: None
Effective Term: 1997*02		Effective Term: 2001*03	
This course is a continuation of NET 250. Topics include further discussion of network management, monitoring, and security, as well as additional work with various types of servers. Upon completion, students should be able to detect and resolve problems relating to network security, performance and recovery on various types of servers.		This course covers how to baseline and troubleshoot and internetworking environment using routers and switches for multi-protocol client, host and servers. Topics include troubleshooting processes, routing and routed protocols, camps switching; and WAN troubleshooting. Upon completion, students should be able to troubleshoot Ethernet, Fast Ethernet and Token Ring LANs; and Serial, Frame Relay and ISDN connections.	
<b>NET 260 Internet Dev and Support</b>	3 0 0 3	<b>NET 275 Attack Methodology</b>	2 2 0 3
Prerequisites: NET 110	Corequisites: None	Prerequisites: NET 233	Corequisites: None
Effective Term: 2001*03		Effective Term: 2002*03	
This course covers issues relating to the development and implementation of Internet related tools and services. Topics include Internet organization, site registration, e-mail servers, Web servers, Web page development, legal issues, firewalls, multimedia, TCP/IP, service providers, FTP, list servers and gateways. Upon completion, students should able to develop and support Internet services needed within an organization.		This course provides the student with an in-depth look at common Internet, network and host-based attack methodologies. Topics include common attack methods	
<b>NET 270 Scalable Networks Design</b>	1 4 0 3		
Prerequisites: None	Corequisites: None		
Effective Term: 2001*03			
This course covers principles and techniques of scalable			



Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
clinical practice of nuclear medicine. Emphasis is placed on the routine clinical procedures, radiopharmaceuticals and dosage, equipment manipulation and basic patient care. Upon completion, students should be able to demonstrate integration of the principles covered in the classroom with the clinical experience.		Upon completion, students should be able to demonstrate an understanding of the principles related to the procedures presented in the course.	
<b>NMT 134 Nuclear Pharmacy</b>	2 0 0 2	<b>NMT 212A Proc for Nuc Med I Lab</b>	0 3 0 1
Prerequisites: NMT 110	Corequisites: None	Prerequisites: NMT 132	Corequisites: NMT 212
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers the formulation and application of radiopharmaceuticals. Topics include the preparation, handling, disposition and quality control of clinically useful radiopharmaceuticals. Upon completion, students should be able to discuss the appropriate use and disposition of radiopharmaceuticals currently used in clinical nuclear medicine.		This course is a laboratory to accompany NMT 212. Emphasis is placed on experiences that enhance material presented in NMT 212. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in NMT 212.	
<b>NMT 136 Health Physics</b>	2 0 0 2	<b>NMT 214 Radiobiology</b>	2 0 0 2
Prerequisites: NMT 110	Corequisites: None	Prerequisites: NMT 132	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers the regulations and practices that ensure minimum exposure of patients, co-workers and self to ionizing radiation. Topics include interactions of radiation with matter, protective practices, state and federal regulatory agencies and their directives and methods of monitoring exposure. Upon completion, students should be able to demonstrate an understanding of the regulations and practices presented in the course.		This course covers the principles of radiation biology. Emphasis is placed on a system's sensitivity to radiation, radiation pathology and the biological effects of radiation. Upon completion, students should be able to demonstrate an understanding of the effects of radiation in nuclear medicine.	
<b>NMT 211 NM Clinical Practice I</b>	0 0 21 7	<b>NMT 215 Non-Imaging Instrument</b>	1 3 0 2
Prerequisites: NMT 132	Corequisites: None	Prerequisites: NMT 132	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course is one of two courses designed to provide clinical practice in nuclear medicine. Topics include radiation protection, radiopharmaceutical use, patient care, imaging procedures, non-imaging procedures, administrative procedures and the therapeutic use of radionuclide. Upon completion, students should be able to demonstrate performance of the procedures covered in the course.		This course covers the proper operation of various types of non-imaging equipment used in nuclear medicine. Emphasis is placed on principles of radiation detection, quality control procedures, various counting problems and machine-specific operating procedures. Upon completion, students should be able to demonstrate the proper use of the devices discussed in the course.	
<b>NMT 212 Proc for Nuclear Med I</b>	2 0 0 2	<b>NMT 218 Computers in Nuc Med</b>	2 0 0 2
Prerequisites: NMT 132	Corequisites: None	Prerequisites: NMT 132	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course begins the in-depth study of clinical procedures performed by nuclear medicine technologists. Emphasis is placed on dose administration, use of instrumentation, computer applications, and normal and abnormal presentation.		This course provides a general introduction to the operation of computers and the application of computers to the field of nuclear medicine. Topics include number systems, major system components, input/output devices and acquisition and processing of nuclear medicine images. Upon completion, students should be able to demonstrate an understanding of the concepts presented.	
		<b>NMT 221 NM Clinical Practice II</b>	0 0 21 7
		Prerequisites: NMT 132	Corequisites: None
		Effective Term: 1997*02	
		This course is one of two courses designed to provide clinical practice in nuclear medicine. Topics include radiation protection, radiopharmaceutical use, patient	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr

care, imaging procedures, non-imaging procedures, administrative procedures and the therapeutic use of radionuclides. Upon completion, students should be able to demonstrate performance of the procedures covered in this course.

**NMT 222 Proc for Nuclear Med II 2 0 0 2**

Prerequisites: NMT 132 Corequisites: None

Effective Term: 1997\*02

This course concludes the in-depth study of clinical procedures performed in nuclear medicine. Topics include method of dose administration, data acquisition parameters, computer use, and data patterns consistent with normal and described pathological states. Upon completion, students should be able to demonstrate an understanding of the principles related to the procedures discussed in the course.

**NMT 222A Proc for Nuc Med II Lab 0 3 0 1**

Prerequisites: NMT 132 Corequisites: NMT 222

Effective Term: 1997\*02

This course is a laboratory to accompany NMT 222. Emphasis is placed on experiences that enhance material presented in NMT 222. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in NMT 222.

**NMT 224 In Vitro Procedures 2 0 0 2**

Prerequisites: NMT 132 Corequisites: None

Effective Term: 1997\*02

This course introduces the area of in vitro nuclear medicine. Emphasis is placed on laboratory skills; selected aspects of chemistry, biochemistry and immunology; procedures for common assays; and laboratory safety. Upon completion, students should be able to demonstrate an understanding of the concepts presented.

**NMT 225 Imaging Instrumentation 1 3 0 2**

Prerequisites: NMT 132 Corequisites: None

Effective Term: 1997\*02

This course covers the operations of various imaging equipment used in nuclear medicine. Emphasis is placed on planar and SPECT gamma cameras. Upon completion, students should be able to safely operate and evaluate performance characteristics of the equipment discussed in the course.

## NURSING

**NUR 101 Practical Nursing I 7 6 6 11**

Prerequisites: Enrollment in the Practical Nursing program

Corequisites: None

Effective Term: 1998\*03

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. This is a diploma-level course.

**NUR 102 Practical Nursing II 8 0 12 12**

Prerequisites: ACA 111, BIO 165, NUR 101 and PSY 150

Corequisites: None

Effective Term: 1997\*02

This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues and wellness/illness patterns. Upon completion, students should be able to begin participating in the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. This is a diploma-level course.

**NUR 103 Practical Nursing III 6 0 12 10**

Prerequisites: NUR 102 Corequisites: None

Effective Term: 1997\*02

This course focuses on use of nursing/related concepts by practical nurses as providers of care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, advocacy, professional development, evolving technology and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. This is a diploma-level course.

**NUR 107 LPN Refresher 9 0 9 12**

Prerequisites: None

Corequisites: None

Effective Term: 1999\*03

This refresher course is designed to provide an independent didactic review for the previously licensed practical nurse whose license has lapsed. Emphasis is placed on common medical-surgical conditions and nursing interventions, including mental health principles, pharmacological concepts and safe clinical practice. Upon completion, students will be eligible to apply for reinstatement of licensure. This is a diploma-level course.

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>NUR 110 Nursing I</b> 5 3 6 8 Prerequisites: <b>Admission to the Associate Degree Nursing program, MAT 070</b> Corequisites: <b>NUR 117, BIO 165</b> Effective Term: 1998*03 This course introduces concepts basic to beginning nursing practice. Emphasis is placed on introducing the nurse's role as provider of care, manager of care and member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations in health.		<b>Effective Term: 1997*02</b> This course is designed to assist the licensed practical nurse in transition to the role of the associate degree nurse. Topics include the role of the registered nurse, nursing process, homeostasis and validation of selected nursing skills and physical assessment. Upon completion, students should be able to articulate into the ADN program at the level of the generic student.	
<b>NUR 117 Pharmacology</b> 1 3 0 2 Prerequisites: None Corequisites: <b>NUR 110</b> Effective Term: 2003*03 This course introduces information concerning sources, effects, legalities and the safe use of medications as therapeutic agents. Emphasis is placed on nursing responsibility, accountability, pharmacokinetics, routes of medication administration, contraindications and side effects. Upon completion, students should be able to compute dosages and administer medication safely.		<b>NUR 210 Nursing IV</b> 5 3 12 10 Prerequisites: <b>NUR 130, PSY 241</b> Corequisites: None Effective Term: 1997*02 This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on using collaboration as a provider of care, manager of care and member of the discipline of nursing. Upon completion, students should be able to modify nursing care for individuals with common alterations in health.	
<b>NUR 120 Nursing II</b> 5 3 6 8 Prerequisites: <b>NUR 110, NUR 117 and BIO 165</b> Corequisites: <b>BIO 166</b> Effective Term: 1997*02 This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on developing the nurse's role as provider of care, manager of care and member of the discipline of nursing. Upon completion, students should be able to participate in the delivery of nursing care for individuals with common alterations in health.		<b>NUR 220 Nursing V</b> 4 3 15 10 Prerequisites: <b>NUR 210</b> Corequisites: <b>NUR 244</b> Effective Term: 1997*02 This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on the nurse's role as an independent provider and manager of care for a group of individuals and member of a multidisciplinary team. Upon completion, students should be able to provide comprehensive nursing care to a group of individuals with common complex health alterations.	
<b>NUR 130 Nursing III</b> 4 3 6 7 Prerequisites: <b>NUR 120 and BIO 166</b> Corequisites: None Effective Term: 1997*02 This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on expanding the nurse's role as provider of care, manager of care and member of the discipline of nursing. Upon completion, students should be able to deliver nursing care to individuals with common alterations in health.		<b>NUR 244 Issues and Trends</b> 2 0 0 2 Prerequisites: <b>NUR 210</b> Corequisites: <b>NUR 220</b> Effective Term: 1997*02 This course presents an overview of current trends and issues in nursing as they affect nursing practice in a changing health care environment. Emphasis is placed on making an effective transition into the roles of the practicing nurse. Upon completion, students should be able to articulate professional aspects of the practice of nursing.	
<b>NUR 189 Nursing Transition</b> 1 3 0 2 Prerequisites: <b>BIO 165, BIO 166, PSY 150, and PSY 241</b> Corequisites: None		<b>NUTRITION</b> <b>NUT 110 Nutrition</b> 3 0 0 3 Prerequisites: None Corequisites: None Effective Term: 2001*03 This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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based on special dietary needs, food habits and contemporary problems associated with food selection. Upon completion, students should be able to apply basic nutritional concepts as they relate to health and well-being.

## OPERATIONS MANAGEMENT

**OMT 160\*\* Ethical Issues in Op Mgmt** 3 0 0 3

Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course focuses on a wide variety of ethical issues in operations management. Emphasis is placed on distinguishing between legal and illegal actions as well as ethical and nonethical actions. Upon completion, students should be able to demonstrate critical thinking skills to evaluate ethical situations.

## OFFICE SYSTEMS TECHNOLOGY

**OST 122 Office Computations** 1 2 0 2

Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course introduces the keypad and the touch method using the electronic calculator. Topics include mathematical functions in business applications. Upon completion, students should be able to use the electronic calculator to solve a wide variety of problems commonly encountered in business.

**OST 131 Keyboarding** 1 2 0 2

Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system. Students will be introduced to basic word processing techniques and learn to format basic business documents.

**OST 132 Keyboarding Skills Building** 1 2 0 2

Prerequisites: None Corequisites: None  
Effective Term: 1998\*03

This course provides basic accuracy- and speed-building drills. Emphasis is placed on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed.

**OST 133 Adv Keyboard Skill Bldg** 1 2 0 2

Prerequisites: OST 132 Corequisites: None  
Effective Term: 1997\*02

This course is designed to increase speed and improve accuracy to meet employment tests and job requirements. Emphasis is placed on individualized diagnostic and prescriptive drills. Upon completion, students should be able to keyboard with greater speed and accuracy as measured by five-minute timed writings and skill-development paragraphs and accuracy as measured by five-minute timed writings and skill-development paragraphs.

**OST 134 Text Entry & Formatting** 2 2 0 3

Prerequisites: **OST 131** Corequisites: None  
Effective Term: 1999\*03

This course is designed to provide the skills needed to increase speed, improve accuracy and format documents. Topics include letters, memos, tables and business reports. Upon completion, students should be able to produce mailable documents and key timed writings at speeds commensurate with employability.

**OST 135 Adv Text Entry & Format** 3 2 0 4

Prerequisites: OST 134 Corequisites: None  
Effective Term: 1997\*02

This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on the production of letters, manuscripts, business forms, tabulation, legal documents and newsletters. Upon completion, students should be able to make independent decisions regarding planning, style and method of presentation.

**OST 136 Word Processing** 1 2 0 2

Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment. *This course will prepare students for the MOS Word core-level exam.*

**OST 137 Office Software Applications** 1 2 0 2

Prerequisites: None Corequisites: None  
Effective Term: 1998\*03

This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and

Course Title	Hours Per Week					Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr			Cl	Lb	Cn	Cr	

use of software through a hands on approach. Upon completion, students should be able to use software in a business environment.

**OST 138 Advanced Software Appl 2 2 0 3**

Prerequisites: OST 137 Corequisites: None

Effective Term: 2003\*02

This course develops proficiency in the utilization of software applications used in business offices through a hands-on approach. Emphasis is placed on in-depth usage of software to create a variety of documents applicable to current business environments. Upon completion, students should be able to master the skills required to design documents that can be customized using the latest software applications.

**OST 148 Med Coding Billing & Insu 3 0 0 3**

Prerequisites: None Corequisites: None

Effective Term: 1999\*03

This course introduces CPT and ICD coding as they apply to medical insurance and billing. Emphasis is placed on accuracy in coding, forms preparation and posting. Upon completion, students should be able to describe the steps of the total billing cycle and explain the importance of accuracy. *Restricted to MED and MOA programs of study.*

**OST 149 Medical Legal Issues 3 0 0 3**

Prerequisites: None Corequisites: None

Effective Term: 1999\*03

This course introduces the complex legal, moral and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.

**OST 162 Executive Terminology 3 0 0 3**

Prerequisites: **RED 090** Corequisites: None

Effective Term: 1997\*02

This course is designed to increase and improve proficiency in word usage. Topics include root words, prefixes, suffixes, homonyms, synonyms and specialized vocabularies. Upon completion, students should be able to use acquired vocabulary skills in the global workplace.

**OST 164 Text Editing Applications 3 0 0 3**

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on

grammar, punctuation, sentence structure, proofreading and editing. Upon completion, students should be able to use reference materials to compose and edit text.

**OST 181 Intro to Office Systems 2 2 0 3**

Prerequisites: None Corequisites: None

Effective Term: 1999\*03

This course introduces the skills and abilities needed in today's office. Topics include effectively interacting with co-workers and the public, processing simple financial and information documents and performing functions typical of today's offices. Upon completion, students should be able to display skills and decision-making abilities essential for functioning in the total office context.

**OST 184 Records Management 1 2 0 2**

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course includes the creation, maintenance, protection, security and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

**OST 201 Medical Transcription I 3 2 0 4**

Prerequisites: OST 136, OST 164 and **OST 203**

Corequisites: MED 122 or OST 142

Effective Term: 1997\*02

This course introduces dictating equipment and typical medical dictation. Emphasis is placed on efficient use of equipment, dictionaries, PDRs and other reference materials. Upon completion, students should be able to efficiently operate dictating equipment and to accurately transcribe a variety of medical documents in a specified time. *This course is intended for diploma programs. Restricted to MED programs of study.*

**OST 202 Medical Transcription II 3 2 0 4**

Prerequisites: OST 201 Corequisites: None

Effective Term: 1997\*02

This course provides additional practice in transcribing documents from various medical specialties. Emphasis is placed on increasing transcription speed and accuracy and understanding medical procedures and terminology. Upon completion, students should be able to accurately transcribe a variety of medical documents in a specified time. *This course is intended for diploma programs. Restricted to MED programs of study.*

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>OST 203 Fundamentals of Med Doc</b> 3 0 0 3		Effective Term: 1997*02	
Prerequisites: None		This course provides an in-depth study of diagnostic coding for the medical office. Emphasis is placed on ICD-9-CM codes used on superbills and other encounter forms. Upon completion, students should be able to apply the principles of diagnostic coding in the physician's office.	
Corequisites: MED 121 or OST 141			
Effective Term: 2000*03			
This course covers the information and procedures necessary for producing acceptable medical documentation. Topics include digital dictation systems; workplace security systems; the access, retrieval, and transport of medical documents; and other transcribing techniques necessary for acceptable medical documentation. Upon completion, students should be able to process medical documents in a home-based or medical facility. <i>This course is intended for diploma programs. Restricted to MED programs of study.</i>			
<b>OST 233 Office Publications Design</b> 2 2 0 3		<b>OST 284 Emerging Technologies</b> 1 2 2	
Prerequisites: OST 136	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1999*03	
This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications.		This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.	
<b>OST 236 Adv Word/Information Proc</b> 2 2 0 3		<b>OST 286 Professional Development</b> 3 0 3	
Prerequisites: OST 135 or OST 136		Prerequisites: None	Corequisites: None
Corequisites: None		Effective Term: 1999*03	
Effective Term: 1999*03		This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.	
This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents. <i>This course will prepare students for the MOS Word expert-level exam.</i>		<b>OST 289 Office Systems Management</b> 2 2 0 3	
<b>OST 244 Med Document Production</b> 1 2 0 2		Prerequisites: <b>CIS 120, OST 137</b> , OST 164 and either OST 134 or OST 136	
Prerequisites: OST 134		Corequisites: None	
Corequisites: None		Effective Term: 2001*03	
Effective Term: 1999*03		This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment. <i>This is a project-based course integrating a variety of software.</i>	
This course provides production-level skill development in processing medical documents. Emphasis is placed on producing mailable documents through the use of medical-related materials. Upon completion, students should be able to perform competently in preparing accurate, correctly formatted, and usable documents.			
<b>OST 248 Diagnostic Coding</b> 1 2 0 2			
Prerequisites: MED 122 or OST 142			
Corequisites: None			

## PHYSICAL EDUCATION

**PED 110\* Fit and Well for Life** 1 2 0 2  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities and interests. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	
<b>PED 113* Aerobics I</b>	0 3 0 1	<b>PED 125* Self-Defense-Beginning</b>	0 2 0 1
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	
<b>PED 117* Weight Training I</b>	0 3 0 1	<b>PED 128* Golf-Beginning</b>	0 2 0 1
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	
<b>PED 120* Walking for Fitness</b>	0 3 0 1	<b>PED 129* Golf-Intermediate</b>	0 2 0 1
Prerequisites: None	Corequisites: None	Prerequisites: PED 128	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces fitness through walking. Emphasis is placed on stretching, conditioning exercises, proper clothing, fluid needs and injury prevention. Upon completion, students should be able to participate in a recreational walking program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots and course management. Upon completion, students should be able to demonstrate the knowledge and ability of play a recreational round of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	
<b>PED 122* Yoga I</b>	0 2 0 1	<b>PED 130* Tennis-Beginning</b>	0 2 0 1
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques and correct body positions. Upon completion, students should be able to demonstrate the procedures for yoga.		This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette and court play. Upon completion, students should be able to play recreational tennis. This course has been approved to	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.									
<b>PED 132* Racquetball-Beginning</b>	0	2	0	1	<b>PED 152* Swimming-Beginning</b>	0	2	0	1
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces the fundamentals of racquetball. Emphasis is placed on rules, fundamentals and strategies of beginning racquetball. Upon completion, students should be able to play recreational racquetball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.									
<b>PED 139* Bowling-Beginning</b>	0	2	0	1	<b>PED 154* Swimming for fitness</b>	0	3	0	1
Prerequisites: None	Corequisites: None				Prerequisites: PED 152	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.									
<b>PED 143* Volleyball-Beginning</b>	0	2	0	1	<b>PED 155* Water Aerobics</b>	0	3	0	1
Prerequisites: None	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.									
<b>PED 145* Basketball-Beginning</b>	0	2	0	1	<b>PED 156* Scuba Diving</b>	0	2	0	1
Prerequisites: None	Corequisites: None				Prerequisites: PED 153	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1998*01				
This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules and basic game strategy. Upon completion, students should be able to participate in recreational basketball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.									
<b>PED 147* Soccer</b>	0	2	0	1					
Prerequisites: None	Corequisites: None								
Effective Term: 1997*02									
This course introduces the basics of soccer. Emphasis is									

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
is placed on the history, theory, and principles of diving; development of diving skills; safety; and care and maintenance of equipment. Upon completion, students should be able to demonstrate skills, knowledge, and techniques of scuba diving in preparation for diver certification. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.		dances. Emphasis is placed on basic social dance techniques, dances and a brief history of social dance. Upon completion, students should be able to demonstrate specific skills and perform some dances. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.	
<b>PED 170* Backpacking</b>	0 2 0 1	<b>PED 212* Snowboarding-Beginning</b>	0 2 0 1
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 2002*01	
This course covers the proper techniques for establishing a campsite, navigating in the wilderness and planning for an overnight trip. Topics include planning for meals, proper use of maps and compass, and packing and dressing for extended periods in the outdoors. Upon completion, students should be able to identify quality backpacking equipment, identify the principles of no-trace camping and successfully complete a backpacking experience. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective requirement.		This course is designed to develop the basic knowledge and skills of snowboard. Topics include equipment, conditioning exercises, terminology, safety, rules, fundamental skills and the use of lifts. Upon completion, students should be able to snowboard downhill, enter and exit a ski lift and perform basic maneuvers on a snowboard. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	
<b>PED 171* Nature Hiking</b>	0 2 0 1	<b>PED 216* Indoor Cycling</b>	0 2 0 1
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 2005*02	
This course provides instruction on how to equip and care for oneself on the trail. Topics include clothing, hygiene, trail ethics and necessary equipment. Upon completion, students should be able to successfully participate in nature trail hikes. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.		This course is designed to promote physical fitness through indoor stationary cycling. Emphasis is placed on pedaling techniques, safety procedures, and conditioning exercises necessary for cycling. Upon completion, students should have improved cardiovascular and muscular endurance and be able to design and participate in a cycling for fitness program. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.	
<b>PED 181* Snow Skiing-Beginning</b>	0 2 0 1	<b>PED 230* Shotokan Karate</b>	0 3 0 1
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 2005*01	
This course introduces the fundamentals of snow skiing. Topics include basic techniques, safety and equipment involved in snow skiing. Upon completion, students should be able to ski a down slope, enter and exit a ski lift and perform basic maneuvers on skis. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		This course introduces martial arts using the Shotokan Karate form. Topics include proper conditioning exercises, proper terminology, historical foundations, etiquette and drills. Upon completion, students should be able to perform skills and techniques related to this form of martial arts. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.	
<b>PED 187* Social Dance-Beginning</b>	0 2 0 1	<b>PED 239* Kickboxing</b>	0 3 0 1
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 2005*01	
This course introduces the fundamentals of popular social		This course introduces martial arts using the Kickboxing form. Topics include proper conditioning exercises, proper terminology, historical foundations, etiquette and	

drills. Upon completion, students should be able to perform skills and techniques related to this form of martial arts. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**PED 240\* Advanced PE Skills** 0 2 0 1  
 Prerequisites: **Demonstrated advanced skills in the specific area of physical education**  
 Corequisites: None  
 Effective Term: 1998\*03

This course provides those who have mastered skills in a particular physical education area the opportunity to assist with instruction. Emphasis is placed on methods of instruction, class organization and progressive skill development. Upon completion, students should be able to design, develop and implement a unit lesson plan for a skill they have mastered. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

## PHILOSOPHY

**PHI 215\* Philosophical Issues** 3 0 0 3  
 Prerequisites: ENG 111 Corequisites: None  
 Effective Term: 1997\*02

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason and justice and inequality. Upon completion, students should be able to identify, analyze and critique the philosophical components of an issue. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

**PHI 240\* Introduction to Ethics** 3 0 0 3  
 Prerequisites: ENG 111 Corequisites: None  
 Effective Term: 1997\*02

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment and justice. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

## PHYSICS

**PHY 102 Fundamentals of Physics II** 3 2 0 4  
 Prerequisites: None Corequisites: None  
 Effective Term: 1997\*02

This course introduces fundamental physical concepts with emphasis on applications. Topics include systems of units, problem-solving methods, graphical analysis, electrostatics, AC and DC circuits, magnetism, transformers, AC and DC motors and generators. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied to their specific programs. This course is intended for diploma programs.

**PHY 110\* Conceptual Physics** 3 0 0 3  
 Prerequisites: None  
 Corequisites: **PHY 110A**  
 Effective Term: 1997\*02

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**PHY 110A\* Conceptual Physics Lab** 0 2 0 1  
 Prerequisites: None Corequisites: PHY 110  
 Effective Term: 1997\*02

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**PHY 121 Applied Physics I** 3 2 0 4  
 Prerequisites: None Corequisites: None  
 Effective Term: 1997\*02

This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum and properties of matter. Upon

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.		to apply the principles studied to applications in engineering technology fields.	
<b>PHY 122 Applied Physics II</b>	3 2 0 4	<b>PHY 133 Physics-Sound &amp; Light</b>	3 2 0 4
Prerequisites: None	Corequisites: None	Prerequisites: PHY 131	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Emphasis is placed on systems of units, problem-solving methods, graphical analysis, static electricity, AC and DC circuits, magnetism, transformers, AC and DC motors and generators. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.		This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, wave motion, sound, light and modern physics. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.	
<b>PHY 125 Health Sciences Physics</b>	3 2 0 4	<b>PHY 251* General Physics I</b>	3 3 0 4
Prerequisites: None	Corequisites: None	Prerequisites: MAT 271	Corequisites: MAT 272
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces fundamental physical principles as they apply to health technologies. Topics include motion, force, work, power, simple machines and other topics as required by the students' area of study. Upon completion, students should be able to demonstrate an understanding of the fundamental principles covered as they relate to practical applications in the health sciences.		This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>PHY 131 Physics-Mechanics</b>	3 2 0 4	<b>PHY 252* General Physics II</b>	3 3 0 4
Prerequisites: MAT 121, MAT 161, MAT 171, or MAT 175		Prerequisites: MAT 272 and PHY 251	
Corequisites: None		Corequisites: None	
Effective Term: 2005*02		Effective Term: 1997*02	
This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.		This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.	
<b>PHY 132 Physics-Elec &amp; Magnetism</b>	3 2 0 4		
Prerequisites: PHY 131	Corequisites: None		
Effective Term: 1997*02			
This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors and generators. Upon completion, students should be able			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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## PLASTICS

**PLA 110 Introduction to Plastics** 2 0 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces the plastics processing industry, including thermoplastics and thermosets. Emphasis is placed on the description, classification and properties of common plastics and processes and current trends in the industry. Upon completion, students should be able to describe the differences between thermoplastics and thermosets and recognize the basics of the different plastic processes.

## PLUMBING

**PLU 110 Modern Plumbing** 4 15 0 9

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces the tools, equipment and materials associated with the plumbing industry. Topics include safety, use and care of tools, recognition and assembly of fittings and pipes and other related topics. Upon completion, students should be able to safely assemble various pipes and fittings in accordance with state code requirements.

**PLU 120 Plumbing Applications** 4 15 0 9

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers general plumbing layout, fixtures and water heaters. Topics include drainage, waste and vent pipes, water service and distribution, fixture installation, water heaters and other related topics. Upon completion, students should be able to safely install common fixtures and systems in compliance with state and local building codes.

**PLU 130 Plumbing Systems** 3 9 0 6

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers the maintenance and repair of plumbing lines and fixtures. Emphasis is placed on identifying and diagnosing problems related to water, drain and vent lines, water heaters and plumbing fixtures. Upon completion, students should be able to identify and diagnose needed repairs to the plumbing system.

**PLU 140 Intro to Plumbing Codes** 1 2 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course covers plumbing industry codes and regulations. Emphasis is placed on North Carolina regulations and the minimum requirements for plumbing materials and design. Upon completion, students should be able to research and interpret North Carolina plumbing codes.

**PLU 150 Plumbing Diagrams** 1 2 0 2

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course introduces sketching diagrams and interpretation of blueprints applicable to the plumbing trades. Emphasis is placed on plumbing plans for domestic and/or commercial buildings. Upon completion, students should be able to sketch plumbing diagrams applicable to the plumbing trades.

## POLITICAL SCIENCE

**POL 120\* American Government** 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course is a study of the origins, development, structure and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

**POL 130\* State & Local Gov** 3 0 0 3

Prerequisites: None Corequisites: None

Effective Term: 1997\*02

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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## PRINTING

### PRN 131 Flexography I 2 4 0 4

Prerequisites: None

Corequisites: None

Effective Term: 1997\*02

This course provides basic hands-on instruction in flexographic image preparation, platemaking, mounting and printing. Emphasis is placed on taking press measurements, making and mounting plates and obtaining quality in press operation on a narrow-web press. Upon completion, students should be able to describe and perform flexographic production procedures in pre-press, press setup, press operation and die-cutting. *This course is limited to the students currently admitted to the Graphics Arts and Imaging Technology program.*

### PRN 155 Screen Printing I 1 3 0 2

Prerequisites: None

Corequisites: None

Effective Term: 1997\*02

This course covers screen printing techniques and materials. Topics include methods, materials, design, and image and stencil preparation techniques. Upon completion, students should be able to produce single- or multi-color projects. *This course is limited to the students currently admitted to the Graphics Arts and Imaging Technology program.*

### PRN 221 Offset Press Operations 1 4 0 3

Prerequisites: None

Corequisites: None

Effective Term: 1997\*02

This course covers advanced lithographic theory and provides extensive hands-on operating experience. Emphasis is placed on make-ready, press operation, maintenance, and troubleshooting of multi-color jobs on sheet-fed offset presses and duplicators. Upon completion, students should be able to set up, run, maintain and produce commercial-quality multi-color work. *This course is limited to the students currently admitted to the Graphics Arts and Imaging Technology program.*

### PRN 240 Print Estimating/Planning 3 0 0 3

Prerequisites: GRA 121

Corequisites: None

Effective Term: 1997\*02

This course covers printing economics, development of cost centers, job flow throughout departments and material and labor costs. Topics include budgeted, hourly, cost-rate derivation; production standards and data; and analysis of other estimating procedures including computer-assisted estimating. Upon completion, students

should be able to demonstrate an understanding of economic factors of the printing industry and determine all production costs of printed jobs. *This course is limited to the students currently admitted to the Graphics Arts and Imaging Technology program.*

## PSYCHOLOGY

### PSY 118 Interpersonal Psychology 3 0 0 3

Prerequisites: None

Corequisites: None

Effective Term: 1997\*02

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.

### PSY 150\* General Psychology 3 0 0 3

Prerequisites: None

Corequisites: None

Effective Term: 1997\*02

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course will also include a specific emphasis upon materials related to the developmental life span. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

### PSY 241\* Developmental Psych 3 0 0 3

Prerequisites: PSY 150

Corequisites: None

Effective Term: 1997\*02

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>PSY 281* Abnormal Psychology</b>	3 0 0 3	and changes related to aging. Emphasis is placed on conditions most commonly treated in physical therapy. Upon completion, students should be able to discuss basic pathological processes and identify etiology, signs, symptoms, complications, treatment options and prognoses of specific orthopedic conditions.	
Prerequisites: PSY 150	Corequisites: None		
Effective Term: 1997*02			
This course provides an examination of the various psychological disorders, as well as theoretical, clinical and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms and therapeutic techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.			
<b>PHYSICAL THERAPY</b>		<b>PTA 145** Therapeutic Procedures</b>	2 6 0 4
<b>PTA 110** Intro to Physical Therapy</b>	2 3 0 3	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1998*03	
Effective Term: 1998*03		This course provides a detailed study of specific treatment procedures and the physiological principles and techniques involved. Emphasis is placed on the correct application of superficial heat and cold, massage and soft tissue mobilization, ultrasound, diathermy, traction and electrical stimulation. Upon completion, students should be able to demonstrate competence in the application of these modalities and explain the indications, contraindications, effects and precautions for each.	
This course introduces the field of physical therapy including the history and standards of practice for the physical therapist assistant and basic treatment techniques. Emphasis is placed on ethical and legal considerations, universal precautions, vital signs, documentation, basic patient preparation and treatment skills and architectural barrier screening. Upon completion, students should be able to explain the role of the physical therapist assistant and demonstrate competence in basic techniques of patient care.		<b>PTA 155** PTA Clinical I</b>	0 0 6 2
		Prerequisites: None	Corequisites: None
		Effective Term: 1998*03	
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.		<b>PTA 165** PTA Clinical I</b>	0 0 9 3
<b>PTA 125** Gross &amp; Functional Anat</b>	3 6 0 5	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1998*03	
Effective Term: 1998*03		This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.	
This course provides an in-depth, clinically oriented survey of gross and functional anatomy. Emphasis is placed on musculoskeletal and nervous systems and clinical biomechanics, including goniometry, basic manual muscle testing and components of normal gait. Upon completion, students should be able to identify specific anatomical structures and describe, observe and measure musculoskeletal posture and function.		<b>PTA 185** PTA Clinical II</b>	0 0 9 3
<b>PTA 135** Pathology</b>	4 0 0 4	Prerequisites: None	Corequisites: None
Prerequisites: None	Corequisites: None	Effective Term: 1998*03	
Effective Term: 1998*03		This course provides the opportunity to gain clinical	
This course introduces principles of pathology, processes of and normal response to injury and disease			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.		signs, symptoms, complications and prognoses of various conditions and implement components of a comprehensive treatment program.	
<b>PTA 212** Health Care/Resources</b>	2 0 0 2	<b>PTA 235** Neurological Rehab</b>	3 6 0 5
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1998*03		Effective Term: 1998*03	
This course provides an overview of various aspects of health care delivery systems and the interrelationships of health care team members. Topics include health agencies and their functions, health care team member roles, management and other health-care issues. Upon completion, students should be able to discuss the functions of health organizations and team members and aspects of health care affecting physical therapy delivery.		This course covers neurological and neuromuscular conditions experienced throughout the life span. Topics include the pathology of selected conditions and the methods of rationales of various treatment approaches. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.	
<b>PTA 215** Therapeutic Exercise</b>	2 3 0 3	<b>PTA 245** PTA Clinical III</b>	0 0 12 4
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1998*03		Effective Term: 1998*03	
This course introduces basic concepts of strengthening, endurance, and flexibility exercise and balance, gait and posture training. Emphasis is placed on applying techniques to the treatment of orthopedic conditions. Upon completion, students should be able to safely and effectively execute basic exercise programs and balance, gait and posture training.		This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.	
<b>PTA 222** Professional Interactions</b>	2 0 0 2	<b>PTA 255** PTA Clinical IV</b>	0 0 12 4
Prerequisites: None	Corequisites: None	Prerequisites: None	Corequisites: None
Effective Term: 1998*03		Effective Term: 1998*03	
This course is designed to assist in the development of effective interpersonal skills in the physical therapist assistant setting. Topics include reactions to disability, the grieving process, methods of communication, motivation, health promotion, disease prevention and aging. Upon completion, students should be able to discuss and demonstrate methods for achieving effective interaction with patients, families, the public and other health-care providers.		This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.	
<b>PTA 225** Intro to Rehabilitation</b>	3 3 0 4	<b>RADIOGRAPHY</b>	
Prerequisites: None	Corequisites: None	<b>RAD 110 Rad Intro &amp; Patient Care</b>	2 3 0 3
Effective Term: 1998*03		Prerequisites: Enrollment in the Radiography program	
This course covers cardiovascular, pulmonary, and integumentary conditions, as well as causes and treatment of amputations. Emphasis is placed upon pathological processes as well as comprehensive treatment of the various conditions studied. Upon completion, students should be able to discuss etiology,		Corequisites: RAD 111 and RAD 151	
		Effective Term: 1998*03	
		This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas.	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>RAD 111 RAD Procedures I</b>	3 3 0 4		
Prerequisites: <b>Enrollment in the Radiography program</b>			
Corequisites: RAD 110 and RAD 151			
Effective Term: 1998*03			
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, spine and pelvis. Upon completion, students should be able to demonstrate competence in these areas.		radiography. Topics include electromagnetic waves, electricity and magnetism, electrical energy, and power and circuits as they relate to radiography. Upon completion, students should be able to demonstrate an understanding of basic principles of physics as they relate to the operation of radiographic equipment.	
<b>RAD 112 RAD Procedures II</b>	3 3 0 4	<b>RAD 151 RAD Clinical Ed I</b>	0 0 6 2
Prerequisites: RAD 110, RAD 111 and RAD 151		Prerequisites: <b>Enrollment in the Radiography program</b>	
Corequisites: RAD 121 and RAD 151		Corequisites: RAD 110 and RAD 111	
Effective Term: 1997*02		Effective Term: 1998*03	
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, bony thorax, and gastrointestinal, biliary and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.		This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.	
<b>RAD 121 Radiographic Imaging I</b>	2 3 0 3	<b>RAD 161 RAD Clinical Ed II</b>	0 0 15 5
Prerequisites: RAD 110, RAD 111 and RAD 151		Prerequisites: RAD 110, RAD 111 and RAD 151	
Corequisites: None		Corequisites: RAD 112 and RAD 121	
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers factors of image quality and methods of exposure control. Topics include density, contrast, recorded detail, distortion, technique charts, manual and automatic exposure control and tube rating charts. Upon completion, students should be able to demonstrate an understanding of exposure control and the effects of exposure factors on image quality.		This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.	
<b>RAD 122 Radiographic Imaging II</b>	1 3 0 2	<b>RAD 171 RAD Clinical Ed III</b>	0 0 12 4
Prerequisites: RAD 112, RAD 121 and RAD 161		Prerequisites: RAD 112, RAD 121 and RAD 161	
Corequisites: RAD 131 and RAD 171		Corequisites: RAD 122 and RAD 131	
Effective Term: 1997*02		Effective Term: 1997*02	
This course covers image receptor systems and processing principles. Topics include film, film storage, processing, intensifying screens, grids and beam limitation. Upon completion, students should be able to demonstrate the principles of selection and usage of imaging accessories to produce quality images.		This course provides experience in patient management specific to fluoroscopic and advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and mastering positioning of gastrointestinal and urological studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.	
<b>RAD 131 Radiographic Physics I</b>	1 3 0 2	<b>RAD 211 RAD Procedures III</b>	2 3 0 3
Prerequisites: None		Prerequisites: RAD 122	
Corequisites: None		Corequisites: RAD 231, RAD 241 and RAD 251	
Effective Term: 2005*03		Effective Term: 1997*02	
This course introduces the fundamental principles of physics that underlie diagnostic X-ray production and		This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic	

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
specialty procedures, pathology and advanced imaging. Upon completion, students should be able to demonstrate competence in these areas.		radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.	
<b>RAD 231 Radiographic Physics II</b> 1 3 0 2		<b>RAD 261 RAD Clinical Ed V</b> 0 0 21 7	
Prerequisites: RAD 171 or RAD 131		Prerequisites: RAD 251 Corequisites: RAD 245	
Corequisites: None		Effective Term: 1997*02	
Effective Term: 2005*03		This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.	
This course continues the study of physics that underlie diagnostic X-ray production and radiographic and fluoroscopic equipment. Topics include X-ray production, electromagnetic interactions with matter, X-ray devices, and equipment circuitry. Upon completion, students should be able to demonstrate an understanding of the application of physical concepts as related to image production.			
<b>RAD 241 Radiobiology/Protection</b> 2 0 0 2		<b>RAD 282 RAD Clinical Elective</b> 0 0 6 2	
Prerequisites: RAD 122, RAD 131 and RAD 171		Prerequisites: <b>Enrollment in the Radiography program</b>	
Corequisites: RAD 211, RAD 231 and RAD 251		Corequisites: None	
Effective Term: 2005*03		Effective Term: 1998*03	
This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.		This course provides advanced knowledge of clinical applications. Emphasis is placed on enhancing clinical skills. Upon completion, students should be able to successfully complete the clinical course objectives.	
<b>RAD 245 Rad Quality Management</b> 1 3 0 2		<b>RESPIRATORY THERAPY</b>	
Prerequisites: RAD 211, RAD 231, RAD 241 and RAD 251		<b>RCP 110 Intro to Respiratory Care</b> 3 3 0 4	
Corequisites: RAD 261		Prerequisites: <b>Enrollment in the Respiratory Therapy program</b>	
Effective Term: 2005*03		Corequisites: None	
This course provides an overview of imaging concepts and introduces methods of quality assurance. Topics include a systematic approach for image evaluation and analysis of imaging service and quality assurance. Upon completion, students should be able to establish and administer a quality assurance program and conduct a critical review of images.		Effective Term: 1998*03	
		This course introduces the respiratory care profession. Topics include the role of the respiratory care practitioner, medical gas administration, basic patient assessment, infection control and medical terminology. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.	
<b>RAD 251 RAD Clinical Ed IV</b> 0 0 21 7		<b>RCP 111 Therapeutics/Diagnostics</b> 4 3 0 5	
Prerequisites: RAD 122, RAD 131 and RAD 171		Prerequisites: RCP 110 Corequisites: None	
Corequisites: RAD 211, RAD 231 and RAD 241		Effective Term: 1997*02	
Effective Term: 1997*02		This course is a continuation of RCP 110. Emphasis is placed on entry-level therapeutic and diagnostic procedures used in respiratory care. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.	
This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations and a further awareness of			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>RCP 112 Patient Management</b>	3 3 0 4	<b>Therapy program</b>	
Prerequisites: RCP 111	Corequisites: None	Corequisites: None	
Effective Term: 1997*02		Effective Term: 1998*03	
This course provides entry-level skills in adult/pediatric mechanical ventilation and respiratory care procedures in traditional and alternative settings. Emphasis is placed on therapeutic modalities and physiological effects of cardiopulmonary rehabilitation, home care, mechanical ventilation and monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.		This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.	
<b>RCP 113 RCP Pharmacology</b>	2 0 0 2	<b>RCP 123 Special Practice Lab</b>	0 3 0 1
Prerequisites: <b>Enrollment in the Respiratory Therapy program, MAT 070</b>		Prerequisites: <b>Enrollment in the Respiratory Therapy program</b>	
Corequisites: None		Corequisites: None	
Effective Term: 1998*03		Effective Term: 1998*03	
This course covers the drugs used in the treatment of cardiopulmonary diseases. Emphasis is placed on the uses, actions, indications, administration and hazards of pharmacological agents. Upon completion, students should be able to demonstrate competence through written evaluations.		This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.	
<b>RCP 114 C-P Anatomy &amp; Physiology</b>	3 0 0 3	<b>RCP 132 RCP Clinical Practice I</b>	0 0 6 2
Prerequisites: BIO 163 or BIO 165 and BIO 166 or BIO 168 and BIO 169		Prerequisites: <b>Enrollment in the Respiratory Therapy program</b>	
Corequisites: None		Corequisites: RCP 110	
Effective Term: 1997*02		Effective Term: 1998*03	
This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care. Emphasis is placed on cardiovascular and pulmonary physiology, acid/base balance and blood gas interpretation. Upon completion, students should be able to demonstrate competence in these concepts through written evaluation.		This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.	
<b>RCP 115 C-P Pathophysiology</b>	2 0 0 2	<b>RCP 145 RCP Clinical Practice II</b>	0 0 15 5
Prerequisites: <b>BIO 165</b>	Corequisites: None	Prerequisites: RCP 110	Corequisites: RCP 111
Effective Term: 1998*01		Effective Term: 1997*02	
This course introduces the etiology, pathogenesis and physiology of cardiopulmonary diseases and disorders. Emphasis is placed on clinical signs and symptoms along with diagnoses, complications, prognoses and management. Upon completion, students should be able to demonstrate competence in these concepts through written evaluations.		This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.	
<b>RCP 122 Special Practice Lab</b>	0 2 0 1	<b>RCP 153 RCP Clinical Practice III</b>	0 0 9 3
Prerequisites: <b>Enrollment in the Respiratory</b>		Prerequisites: RCP 111	Corequisites: None
		Effective Term: 1997*02	
		This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.	

**RCP 210 Critical Care Concepts 3 3 0 4**

Prerequisites: **Successful completion of three semesters of the Respiratory Therapy program**

Corequisites: None

Effective Term: 1998\*03

This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the study of mechanical ventilation, underlying pathophysiology and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

**RCP 211 Adv Monitoring/Procedures 3 3 0 4**

Prerequisites: RCP 210 Corequisites: None

Effective Term: 1997\*02

This course includes advanced information gathering and decision making for the respiratory care professional. Topics include advanced cardiac monitoring and special procedures. Upon completion, students should be able to evaluate, design and recommend appropriate care plans through written and laboratory evaluations.

**RCP 214 Neonatal/Ped's RC 1 3 0 2**

Prerequisites: RCP 111 Corequisites: None

Effective Term: 1997\*02

This course provides in-depth coverage of the concepts of neonatal and pediatric respiratory care. Emphasis is placed on neonatal and pediatric pathophysiology and on the special therapeutic needs of neonates and children. Upon completion, students should be able to demonstrate competence in these concepts through written and laboratory evaluations.

**RCP 215 Career Prep-Adv Level 0 3 0 1**

Prerequisites: **Enrollment in the Respiratory Therapy program**

Corequisites: None

Effective Term: 1998\*03

This course provides preparation for employment and the advanced-level practitioner credentialing exam. Emphasis is placed on review of the NBRC Advanced-Level Practitioner Exam and supervision and management. Upon completion, students should be able to successfully complete the appropriate self-assessment examinations and meet the requirements for employment.

**RCP 223 Special Practice Lab 0 3 0 1**

Prerequisites: **Enrollment in the Respiratory Therapy program**

Corequisites: None

Effective Term: 1998\*03

This course provides additional laboratory learning

opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.

**RCP 236 RCP Clinical Practice IV 0 0 18 6**

Prerequisites: RCP 111

Corequisites: RCP 210

Effective Term: 1997\*02

This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

**RCP 247 RCP Clinical Practice V 0 0 21 7**

Prerequisites: RCP 210

Corequisites: RCP 211

Effective Term: 1997\*02

This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

## REAL ESTATE APPRAISAL

**REA 101 Intro Real Est App R-1 2 0 0 2**

Prerequisites: None

Corequisites: None

Effective Term: 1997\*02

This course introduces the entire valuation process, with specific coverage of residential neighborhood and property analysis. Topics include basic real property law, concepts of value and operation of real estate markets, mathematical and statistical concepts, finance and residential construction/design. Upon completion, students should be able to demonstrate adequate preparation for REA 102. This course is required for the Real Estate Appraisal Certificate.

**REA 102 Valuation Prin & Prac R-2 2 0 0 2**

Prerequisites: REA 101

Corequisites: None

Effective Term: 1997\*02

This course introduces procedures used to develop an estimate of value and how the various principles of value relate to the application of such procedures. Topics include the sales comparison approach, site valuation, sales comparison, the cost approach, the income approach and reconciliation. Upon completion, students should be able to complete the Uniform Residential Appraisal Report (URAR). This course is required for the Real Estate Appraisal Certificate.

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>REA 103    Applied Res Prop Val R-3</b>	1	0	0	1	<b>REA 203    Applied Inc Prop Val G-3</b>	2	0	0	2
Prerequisites: REA 102	Corequisites: None				Prerequisites: REA 202	Corequisites: None			
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers the laws and standards practiced by appraisers in the appraisal of residential 1-4 unit properties and small farms. Topics include Financial Institutions Reform and Recovery Enforcement Act (FIRREA), Uniform Standards of Professional Appraisal Practice (USPAP), and North Carolina statutes and rules. Upon completion, students should be able to demonstrate eligibility to sit for the NC Appraisal Board license trainee examination and to enroll in REA 201. This course is required for the Real Estate Appraisal Certificate.					This course covers the laws, rules and standards pertaining to the principles and practices applicable to the appraisal of income properties. Topics include FIRREA, USPAP, Uniform Commercial and Industrial Appraisal Report (UCIAR) form, North Carolina statutes and rules and case studies. Upon completion, students should be able to prepare a narrative report that conforms to the USPAP and sit for the NC Certified General Appraisal examination. This course is required for the Real Estate Appraisal Certificate.				
					<b>READING</b>				
<b>REA 104    USPAP R-4</b>	1	0	0	1	<b>RED 070    Essential Reading Skills</b>	3	2	0	4
Prerequisites: REA 103	Corequisites: None				Prerequisites: None	Corequisites: None			
Effective Term: 2003*01					Effective Term: 2000*03				
This course introduces all aspects of the appraisers conduct, ethics and competency. Topics include appraisal standards, reviews, reports and the confidentiality provisions as set forth by the North Carolina Appraisal Board. Upon completion, students should be able to sit for the National USPAP examination.					This course is designed to strengthen reading skills. Emphasis is placed on basic word attack skills, vocabulary, transitional words, paragraph organization, basic comprehension skills and learning strategies. Upon completion, students should be able to demonstrate competence in the skills required for RED 080. This course does not satisfy the developmental reading and writing prerequisite for ENG 111 or ENG 111A.				
<b>REA 201    Intro Income Prop App G-1</b>	2	0	0	2	<b>RED 080    Intro to College Reading</b>	3	2	0	4
Prerequisites: REA 103	Corequisites: None				Prerequisites: RED 070 or ENG 075 or <b>acceptable test score</b>				
Effective Term: 1997*02					Corequisites: None				
This course introduces concepts and techniques used to appraise real estate income properties. Topics include real estate market analysis, property analysis and site valuation, how to use financial calculators, present value, NOI and before-tax cash flow. Upon completion, students should be able to estimate income property values using direct capitalization and to sit for the NC Certified Residential Appraiser examination. This course is required for the Real Estate Appraisal Certificate.					Effective Term: 1997*02				
<b>REA 202    Adv Inc Capital Proc G-2</b>	2	0	0	2	This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions and understand vocabulary in context. This course does not satisfy the developmental reading prerequisite for ENG 111 or ENG 111A.				
Prerequisites: REA 201					<b>RED 090    Improved College Reading</b>	3	2	0	4
Corequisites: A financial calculator is required for this course					Prerequisites: RED 080 or ENG 085 or <b>acceptable test score</b>				
Effective Term: 1997*02					Corequisites: None				
This course expands direct capitalization techniques and introduces yield capitalization. Topics include yield rates, discounted cash flow, financial leverage and traditional yield capitalization formulas. Upon completion, students should be able to estimate the value of income producing property using yield capitalization techniques. This course is required for the Real Estate Appraisal Certificate. <i>A financial calculator is required for this course.</i>					Effective Term: 1997*02				
					This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose,				

tone and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material. This course satisfies the developmental reading prerequisites for ENG 111 or ENG 111A.

# RELIGION

**REL 110\* World Religions** 3 0 0 3  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism and Christianity. Upon completion, students should be able to identify the origins, history, beliefs and practices of the religions studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

**REL 211\* Intro to Old Testament** 3 0 0 3  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course is a survey of the literature of the Hebrews with readings from the law, prophets and other writings. Emphasis is placed on the use of literary, historical, archeological and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

**REL 212\* Intro to New Testament** 3 0 0 3  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course is a survey of the literature of first century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

**REL 221\* Religion in America** 3 0 0 3  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course is an examination of religious beliefs and

practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

# REAL ESTATE

**RLS 112 Real Estate Fundamentals** 5 0 0 5  
Prerequisites: None Corequisites: None  
Effective Term: 2000\*03

This course provides basic instruction in real estate principles and practices. Topics include law, finance, brokerage, closing, valuation, management, taxation, mathematics, construction, land use, property insurance and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate basic knowledge and skills necessary for real estate sales.

**RLS 113 Real Estate Mathematics** 2 0 0 2  
Prerequisites: None Corequisites: None  
Effective Term: 1997\*02

This course provides basic instruction in business mathematics applicable to real estate situations. Topics include area computations, percentage of profit/loss, bookkeeping and accounting methods, appreciation and depreciation, financial calculations and interest yields, property valuation, insurance, taxes and commissions. Upon completion, students should be able to demonstrate proficiency in applied real estate mathematics.

**RLS 117 Real Estate Broker** 4 0 0 4  
Prerequisites: RLS 112 Corequisites: None  
Effective Term: 1997\*02

This course consists of advanced-level instruction on a variety of topics related to Real Estate law and brokerage practices. Topics include: real estate brokerage, finance and sales, RESPA, fair housing issues, selected NC Real Estate License Law and NC Real Estate Commission Rule issues. Upon completion, students should be able to demonstrate knowledge of real estate brokerage, law and finance.

**RLS 216 Land Use Controls** 2 0 0 2  
Prerequisites: RLS 112 Corequisites: None  
Effective Term: 1997\*02

This course analyzes private and public issues germane

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
to the "highest and best use" of real property. Topics include the property survey, zoning ordinances, financing and other considerations appropriate to the development of real property. Upon completion, students should be able to explain public policies and considerations regarding the uses and development of private property.		areas to include computed tomography and magnetic resonance imaging with an introduction to radiation therapy. Upon completion, students should be able to demonstrate successful completion of clinical objectives.	
<b>RLS 220 Real Est Invest Analysis</b>	3 0 0 3	<b>RTT 210 Radiobiology</b>	2 0 0 2
Prerequisites: BUS 225	Corequisites: None	Prerequisites: RTT 161	Corequisites: None
Effective Term: 1997*02		Effective Term: 2005*03	
This course introduces techniques necessary to compare alternative real estate investments. Topics include analysis of positive and negative cash flows, risk and return, acquisition, ownership, disposition of real property and tax considerations. Upon completion, students should be able to select from alternative investment opportunities.		This course focuses on the biological effects of ionizing radiation, tissue sensitivity and tissue response to radiation. Emphasis is placed on methods of radiation protection applicable to tumor localization and treatment delivery. Upon completion, students should be able to demonstrate an understanding of the effects of ionizing radiation on the body.	
<b>RADIATION THERAPY</b>		<b>RTT 220 Rad Therapy Orientation</b>	2 0 0 2
<b>RTT 121 Special Imaging</b>	2 0 0 2	Prerequisites: RTT 161	Corequisites: None
Prerequisites: RAD 121 and RTT 151		Effective Term: 2005*03	
Corequisites: None		This course introduces the operations of radiation therapy departments. Emphasis is placed on patient care in the clinical setting, familiarization with therapy equipment and the role of the radiation therapist. Upon completion, students should be able to demonstrate an understanding of the roles of a radiation therapist.	
Effective Term: 2005*03		<b>RTT 221 Clinical Oncology I</b>	3 0 0 3
This course introduces special imaging modalities including computed tomography and magnetic resonance imaging. Emphasis is placed on the comparison of computed tomography and magnetic resonance imaging for the visualization of various neoplasms. Upon completion, students should be able to demonstrate proper utilization of special imaging modalities relative to radiation treatment planning.		Prerequisites: RTT 161	Corequisites: None
<b>RTT 151 RTT Clinical Ed II</b>	0 0 9 3	Effective Term: 2005*03	
Prerequisites: RAD 110, RAD 111 and RAD 151		This course introduces the principles of carcinogenesis and neoplasia. Emphasis is placed on cancer development in relation to specific anatomical sites. Upon completion, students should be able to recognize factors related to cancer development and state treatment options for each anatomical site included.	
Corequisites: None		<b>RTT 222 Clinical Oncology II</b>	3 0 0 3
Effective Term: 2005*03		Prerequisites: RTT 221	Corequisites: None
This course provides additional experience in patient management and in the more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.		Effective Term: 2005*03	
<b>RTT 161 RTT Clinical Ed III</b>	0 0 6 2	This course continues the study of neoplasia in relation to specific anatomical systems. Emphasis is placed on cancer development in relation to specific anatomical sites. Upon completion, students should be able to recognize factors related to cancer development and state treatment options for each anatomical site included.	
Prerequisites: RAD 121 and RTT 151		<b>RTT 230 General Rad Thry Physics</b>	3 0 0 3
Corequisites: None		Prerequisites: RTT 161	Corequisites: None
Effective Term: 2005*03		Effective Term: 2005*03	
This course provides the opportunity to become proficient in basic procedures and gain experience in advanced areas. Emphasis is placed on special imaging		This course introduces the fundamental principles of	

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
physics as they relate to radiation therapy. Topics include the structure of the atom, matter and energy, definitions of the nature of radiation, radioactivity, and interactions with matter. Upon completion, students should be able to demonstrate a basic understanding of physics and how it relates to radiation therapy.					<b>RTT 239 RTT Clinical Ed V</b>	0	2	18	7
					Prerequisites: RTT 238 or RTT 240				
					Corequisites: None				
					Effective Term: 2005*03				
					This course provides additional experience in patient management. Emphasis is placed on the development and refinement of technical skills within the radiation therapy department. Upon completion, students should be able to demonstrate successful completion of objectives.				
<b>RTT 231 Dosimetry</b>	3	0	0	3	<b>RTT 246 RTT Clinical Ed VI</b>	0	0	18	6
Prerequisites: RTT 230 or RTT 233					Prerequisites: RTT 239, RTT 241, RTT 243, or RTT 244				
Corequisites: None					Corequisites: RTT 232				
Effective Term: 2005*03					Effective Term: 1997*02				
This course is a study of clinical dosimetry and treatment planning. Emphasis is placed on treatment planning techniques and beam arrangements. Upon completion, students should be able to demonstrate a knowledge of dosimetry procedures used to treat various neoplasms.					This course promotes clinical practice on a more independent level of performance. Emphasis is placed on the utilization of equipment, patient care techniques and treatment considerations for more complicated radiation therapy procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.				
<b>RTT 232 Rad Therapy Procedures</b>	2	0	0	2					
Prerequisites: RTT 222, RTT 231 or RTT 234 and RTT 239 or RTT 241, RTT 243 or RTT 244									
Corequisites: None									
Effective Term: 2005*03									
This course covers routine and new techniques in simulation and treatment procedures. Emphasis is placed on treatment choices relative to the tumor site and modality selected. Upon completion, students should be able to demonstrate an understanding of basic and advanced treatment procedures.									
<b>RTT 233 Rad Therapy Physics</b>	2	0	0	2	<b>RUS 110 Intro to Russian</b>	2	0	0	2
Prerequisites: RTT 161					Prerequisites: None				Corequisites: None
Corequisites: None					Effective Term: 1997*02				
Effective Term: 2005*03					This course provides an introduction to understanding, speaking, reading and writing Russian. Emphasis is placed on pronunciation, parts of speech, communicative phrases, culture and skills for language acquisition. Upon completion, students should be able to identify and apply basic grammar concepts, display cultural awareness and communicate in simple phrases in Russian.				
This course provides a study of the interaction of radiation with matter. Emphasis is placed on atomic interactions and dose measurement techniques. Upon completion, students should be able to demonstrate a knowledge of radiation interactions and dose measurement procedures as they apply to radiation safety.					<b>RUS 111* Elementary Russian I</b>	3	0	0	3
					Prerequisites: None				Corequisites: None
					Effective Term: 1997*02				
<b>RTT 238 RTT Clinical Ed IV</b>	0	2	15	6	This course introduces the fundamental elements of the Russian language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Russian and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.				
Prerequisites: RTT 161									
Corequisites: None									
Effective Term: 2005*03									
This course provides clinical experience in the use of equipment and patient positioning in both simulation and delivery of radiation therapy treatments. Emphasis is placed on the varied aspects of the radiation therapy department and patient progression through evaluation, treatment and follow-up. Upon completion, students should be able to demonstrate successful completion of clinical objectives.									

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Gr		Cl	Lb	Cn	Gr

**RUS 112\* Elementary Russian II** 3 0 0 3  
 Prerequisites: RUS 111 Corequisites: None  
 Effective Term: 1997\*02

This course is a continuation of RUS 111 focusing on the fundamental elements of the Russian language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Russian and to demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

**RUS 211\* Intermediate Russian I** 3 0 0 3  
 Prerequisites: RUS 112 Corequisites: None  
 Effective Term: 1997\*02

This course provides a review and expansion of the essential skills of the Russian language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately and creatively about the past, present and the future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

**RUS 212\* Intermediate Russian II** 3 0 0 3  
 Prerequisites: RUS 211 Corequisites: None  
 Effective Term: 1997\*02

This course provides a continuation of RUS 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

## RECREATIONAL VEHICLE MAINTENANCE & REPAIR

**RVM 110 Introduction to RV** 2 0 0 2  
 Prerequisites: None Corequisites: None  
 Effective Term: 1998\*03

This course covers the use of basic hand tools and equipment used in the repair of recreational vehicles. Topics include service area safety practices, technician liability, service documentation, classification, manufacturer's manuals, procedures, industrial codes

and standards. Upon completion, students should be able to begin service and maintenance procedures on all classifications of recreational vehicles.

**RVM 112 RV Preventive Maintenance** 1 2 0 2  
 Prerequisites: None Corequisites: None  
 Effective Term: 1998\*03

This course is designed to acquaint students with the procedures necessary to complete routine inspections and maintenance of the RV. Emphasis is placed on techniques and procedures to insure a RV's safe and dependable operation. Upon completion, students should be able to do visual inspections, periodic checks and tests, equipment adjustments, fluid replacement, lubrication, filter changes and belt replacement.

**RVM 115 Pre-Delivery Inspection** 1 2 0 2  
 Prerequisites: None Corequisites: None  
 Effective Term: 1998\*03

This course covers the pre-delivery preparation necessary for new units to be ready for the customer on delivery of the vehicle. Topics include following original equipment manufacturer's (OEM) guidelines and checklists to insure that all systems and components are in working order. Upon completion, students should be able to follow prescribed checklist to perform pre-delivery inspections.

**RVM 125 RV Electrical Systems** 2 6 0 4  
 Prerequisites: None Corequisites: None  
 Effective Term: 1998\*03

This course includes basic electrical concepts, AC/DC circuit fundamentals, test equipment operation and interpretation. Emphasis is placed on the study of various RV systems and appliances as to their operation, diagnosis and repair. Upon completion, students should be able to troubleshoot, repair or replace electrical circuits and components and auxiliary systems in RV's.

**RVM 130 LP Gas Systems/Appliances** 1 2 0 2  
 Prerequisites: None Corequisites: None  
 Effective Term: 1998\*03

This course introduces the fundamental operation of liquefied petroleum gas as a power supply in recreational vehicles. Topics include propane gas distribution systems, water heaters, ranges, refrigerators, furnaces, ice makes, LP gas characteristics, codes and safety procedures. Upon completion, students should be able to safely inspect, troubleshoot, repair or replace LP gas distribution system components according to industry and government standards.

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>RVM 140 Brake, Towing/Suspensions</b> 1 2 0 2			
Prerequisites: None Corequisites: None			
Effective Term: 1998*03			
This course provides an overview of primary and auxiliary suspension systems, towing and electric brake systems. Emphasis is placed on the skills to inspect, install, troubleshoot, repair or replace suspension, electric brake and towing systems and their component parts. Upon completion, students should be able to service and maintain these systems on all types of recreational vehicles.		systems. Topics include troubleshooting, repair and replacement of furnaces, other components, and the basic principles of gears, levers, pulleys, solids, liquids and gases in RV's. Upon completion, students should be able to provide routine inspection, maintenance and repair of heating and other mechanical systems in RV's.	
<b>RVM 150 Air Conditioning Systems</b> 1 2 0 2		<b>RVM 190 Interior/Exterior Coach</b> 2 4 0 4	
Prerequisites: None Corequisites: None		Prerequisites: None Corequisites: None	
Effective Term: 1998*03		Effective Term: 1998*03	
This course introduces basic refrigeration theory and operating principles. Topics include the Clean Air Act and mandatory certification in handling CFC's, methods of CFC recovery and recycling, installation, troubleshooting, repair and replacement of components. Upon completion, students should be able to inspect, diagnose and repair RV air conditioning systems.		This course introduces structural characteristics of the interior and exterior components of recreational vehicles, including accessories. Topics include interior cabinetry, furniture, hardware, paneling, fabrics, windows, doors, exterior sidewalls, roofing, locating and repairing water and air leaks, body repair and painting. Upon completion, students should be able to work with wood, metal, plastic and cloth for making interior and exterior repairs on recreational vehicles.	
<b>RVM 160 RV Water Systems</b> 2 4 0 4		<b>SOCIOLOGY</b>	
Prerequisites: None Corequisites: None		<b>SOC 210* Introduction to Sociology</b> 3 0 0 3	
Effective Term: 1998*03		Prerequisites: None Corequisites: None	
This course is designed to introduce students to the various water systems in a recreational vehicle. Topics include the operation, troubleshooting, repair and/or replacement of fresh and waste water systems and components found in a recreational vehicle. Upon completion, students should be able to inspect, diagnose and repair RV water systems.		Effective Term: 1997*02	
<b>RVM 170 RV Fluid Power</b> 1 2 0 2		This course introduces the scientific study of human society, culture and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups and societies. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.	
Prerequisites: None Corequisites: None		<b>SOC 213* Sociology of the Family</b> 3 0 0 3	
Effective Term: 1998*03		Prerequisites: None Corequisites: None	
This course provides an overview of fluid power principles, concepts and applications utilized in recreational vehicles. Emphasis is placed on pneumatic and hydraulic power generation, controls and activation devices found in recreational vehicles. Upon completion, students should be able to do visual inspections, periodic checks and tests with equipment and repair fluid power systems and components as needed.		Effective Term: 1997*02	
<b>RVM 180 Heating/Mechanical System</b> 1 3 0 2		This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.	
Prerequisites: RVM 130 Corequisites: None			
Effective Term: 1998*03			
This course covers the operation, maintenance and replacement of RV heating and other mechanical			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>SOC 215* Group Processes</b>	3 0 0 3		
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course introduces group processes and dynamics. Emphasis is placed on small group experiences, roles and relationships within groups, communication, cooperation and conflict resolution, and managing diversity within and among groups. Upon completion, students should be able to demonstrate the knowledge and skills essential to analyze group interaction and to work effectively in a group context. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.			
<b>SOC 225* Social Diversity</b>	3 0 0 3		
Prerequisites: None	Corequisites: None		
Effective Term: 1997*02			
This course provides a comparison of diverse roles, interests, opportunities, contributions and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values and tolerance. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.			
<b>MEDICAL SONOGRAPHY</b>			
<b>SON 110 Intro to Sonography</b>	1 3 3 3		
Prerequisites: <b>Enrollment in the Medical Sonography or Cardiovascular Sonography programs.</b>			
Corequisites: SON 130			
Effective Term: 1998*03			
This course provides an introduction to medical sonography. Topics include applications, sonographic terminology, history, patient care, ethics and basic skills. Upon completion, students should be able to define professionalism and sonographic applications and perform basic patient care skills and preliminary scanning techniques.			
<b>SON 111 Sonographic Physics</b>	3 3 0 4		
Prerequisites: CVS 163 or SON 110			
Corequisites: None			
Effective Term: 1997*02			
This course introduces ultrasound physical principles, bioeffects and sonographic instrumentation. Topics include sound wave mechanics, transducers, sonographic equipment, Doppler physics, bioeffects and			
safety. Upon completion, students should be able to demonstrate knowledge of sound wave mechanics, transducers, sonography equipment, the Doppler effect, bioeffects and safety.			
<b>SON 120 SON Clinical Ed I</b>	0 0 15 5		
Prerequisites: SON 110	Corequisites: None		
Effective Term: 1997*02			
This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.			
<b>SON 121 SON Clinical Ed II</b>	0 0 15 5		
Prerequisites: SON 120	Corequisites: None		
Effective Term: 1997*02			
This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.			
<b>SON 130 Abdominal Sonography I</b>	2 3 0 3		
Prerequisites: <b>Enrollment in the Medical Sonography program</b>			
Corequisites: None			
Effective Term: 1998*03			
This course introduces abdominal and small parts sonography. Emphasis is placed on the sonographic anatomy of the abdomen and small parts with correlated laboratory exercises. Upon completion, students should be able to recognize and acquire basic abdominal and small parts images.			
<b>SON 131 Abdominal Sonography II</b>	1 3 0 2		
Prerequisites: SON 130	Corequisites: None		
Effective Term: 1997*02			
This course covers abdominal and small parts pathology recognizable on sonograms. Emphasis is placed on abnormal sonograms of the abdomen and small parts with correlated sonographic cases. Upon completion, students should be able to recognize abnormal pathological processes in the abdomen and on small parts sonographic examinations.			
<b>SON 140 Gynecological Sonography</b>	2 0 0 2		
Prerequisites: SON 110 or enrollment in the <b>Medical Sonography program and SON 130</b>			
Corequisites: None			
Effective Term: 1998*03			
This course is designed to relate gynecological anatomy			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
and pathology to sonography. Emphasis is placed on gynecological relational anatomy, endovaginal anatomy and gynecological pathology. Upon completion, students should be able to recognize normal and abnormal gynecological sonograms.		This course covers normal obstetrical sonography techniques, the normal fetal environment and abnormal first trimester pregnancy states. Topics include gestational dating, fetal anatomy, uterine environment and first trimester complications. Upon completion, students should be able to produce gestational sonograms which document age, evaluate the uterine environment and recognize first trimester complications.	
<b>SON 220 SON Clinical Ed III</b> 0 0 24 8		<b>SON 242 Obstetrical Sonography II</b> 2 0 0 2	
Prerequisites: SON 121 Corequisites: None		Prerequisites: SON 241 Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.		This course covers second and third trimester obstetrical complications and fetal anomalies. Topics include abnormal fetal anatomy and physiology and complications in the uterine environment. Upon completion, students should be able to identify fetal anomalies, fetal distress states and uterine pathologies.	
<b>SON 221 SON Clinical Ed IV</b> 0 0 24 8		<b>SON 250 Vascular Sonography</b> 1 3 0 2	
Prerequisites: SON 220 Corequisites: None		Prerequisites: SON 111 Corequisites: None	
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides continued active participation off campus in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating sonographic examinations. Upon completion, students should be able to image, process and evaluate sonographic examinations.		This course provides an in-depth study of the anatomy and pathology of the vascular system. Topics include peripheral arterial, peripheral venous and cerebrovascular disease testing. Upon completion, students should be able to identify normal vascular anatomy and recognize pathology of the vascular system.	
<b>SON 222 Selected SON Clinical Ed</b> 0 0 6 2		<b>SON 272 Advanced Pathology</b> 0 3 0 1	
Prerequisites: SON 110 Corequisites: None		Prerequisites: SON 110 or enrollment in the Medical Sonography program and SON 131 and SON 241	
Effective Term: 1998*03		Corequisites: None	
This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing and technically evaluating selected sonographic examinations. Upon completion, students should be able to image, process and evaluate selected sonographic examinations.		Effective Term: 1998*03	
<b>SON 225 Case Studies</b> 0 3 0 1		This course is designed to concentrate on complex pathological states seen on sonograms. Emphasis is placed on systemic diseases and multi-organ disease states as seen on sonograms. Upon completion, students should be able to research, present and discuss system diseases presented on sonograms.	
Prerequisites: SON 110 or CVS 163		<b>SON 274 Neurosonology</b> 2 0 0 2	
Corequisites: None		Prerequisites: SON 110 or enrollment in the Medical Sonography program	
Effective Term: 1999*03		Corequisites: None	
This course offers the opportunity to present interesting cases found during clinical education. Emphasis is placed on presentation methods which integrate patient history, laboratory results and sonographic findings with reference to current literature. Upon completion, students should be able to correlate information necessary for complete presentation of case studies.		Effective Term: 1998*03	
<b>SON 241 Obstetrical Sonography I</b> 2 0 0 2		This course covers the applications of sonography in neurology. Topics include neurological problems as documented by sonography. Upon completion, students should be able to demonstrate the techniques for documenting neurological anatomy and pathological conditions as seen on sonograms.	
Prerequisites: SON 110 or enrollment in the Medical Sonography certificate program and SON 121			
Corequisites: None			
Effective Term: 1998*03			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>SON 276 Fetal Echocardiography</b> 1 0 0 1		This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.	
Prerequisites: <b>Enrollment in the Medical Sonography or Cardiovascular Sonography programs and SON 241</b>			
Corequisites: None			
Effective Term: 1998*03			
This course introduces the normal and abnormal development of the fetal heart with correlation to sonographic evaluation. Emphasis is placed on cardiac anatomy and physiology in the normal fetus as well as cardiac defects. Upon completion, students should be able to identify and evaluate normal and abnormal fetal cardiac structures.			
<b>SON 289 Sonographic Topics</b> 2 0 0 2		<b>SPA 141* Culture and Civilization</b> 3 0 0 3	
Prerequisites: SON 220	Corequisites: SON 221	Prerequisites: None	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides an overview of sonographic topics in preparation for certification examinations. Emphasis is placed on registry preparation. Upon completion, students should be able to demonstrate a comprehensive knowledge of sonography and be prepared for the registry examinations.		This course provides an opportunity to explore issues related to the Hispanic world. Topics include historical and current events, geography and customs. Upon completion, students should be able to identify and discuss selected topics and cultural differences related to the Hispanic world. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	
<b>SPANISH</b>			
<b>SPA 110 Introduction to Spanish</b> 2 0 0 2		<b>SPA 161* Cultural Immersion</b> 2 3 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: SPA 111	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course provides an introduction to understanding, speaking, reading and writing Spanish. Emphasis is placed on pronunciation, parts of speech, communicative phrases, culture and skills for language acquisition. Upon completion, students should be able to identify and apply basic grammar concepts, display cultural awareness and communicate in simple phrases in Spanish.		This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.	
<b>SPA 111* Elementary Spanish I</b> 3 0 0 3		<b>SPA 211* Intermediate Spanish I</b> 3 0 0 3	
Prerequisites: None	Corequisites: None	Prerequisites: SPA 112	Corequisites: None
Effective Term: 1997*02		Effective Term: 1997*02	
This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. <i>Students with no prior Spanish are recommended to take SPA 110.</i>		This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present and future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.	
<b>SPA 112* Elementary Spanish II</b> 3 0 0 3			
Prerequisites: SPA 111	Corequisites: None		
Effective Term: 1997*02			

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
<b>SPA 212* Intermediate Spanish II</b> 3 0 0 3 Prerequisites: SPA 211 Corequisites: None Effective Term: 1997*02 This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.		welding process. Emphasis is placed on padding, fillet and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.	
<b>SPA 221* Spanish Conversation</b> 3 0 0 3 Prerequisites: SPA 212 Corequisites: None Effective Term: 1997*02 This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.		<b>WLD 116 SMAW (Stick) Plate/Pipe</b> 1 9 0 4 Prerequisites: WLD 115 Corequisites: None Effective Term: 1997*02 This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical and overhead positions.	
		<b>WLD 121 GMAW (MIG) FCAW/Plate</b> 2 6 0 4 Prerequisites: None Corequisites: None Effective Term: 1997*02 This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal and overhead positions.	
<b>WELDING</b>		<b>WLD 131 GTAW (TIG) Plate</b> 2 6 0 4 Prerequisites: None Corequisites: None Effective Term: 1997*02 This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.	
<b>WLD 110 Cutting Processes</b> 1 3 0 2 Prerequisites: None Corequisites: None Effective Term: 1997*02 This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.		<b>WLD 132 GTAW (TIG) Plate/Pipe</b> 1 6 0 3 Prerequisites: WLD 131 Corequisites: None Effective Term: 1997*02 This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.	
<b>WLD 112 Basic Welding Processes</b> 1 3 0 2 Prerequisites: None Corequisites: None Effective Term: 1997*02 This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing and soldering processes.			
<b>WLD 115 SMAW (Stick) Plate</b> 2 9 0 5 Prerequisites: None Corequisites: None Effective Term: 1997*02 This course introduces the shielded metal arc (stick)			

Course Title	Hours Per Week				Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr		Cl	Lb	Cn	Cr
<b>WLD 141 Symbols &amp; Specifications</b>	2	2	0	3	welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.				
Prerequisites: None									
Corequisites: None									
Effective Term: 1997*02									
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.									
<b>WLD 143 Welding Metallurgy</b>	1	2	0	2	<b>WLD 231 GTAW (TIG) Pipe</b>	1	6	0	3
Prerequisites: None					Prerequisites: WLD 132				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation and classification systems used in welding.					This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.				
<b>WLD 145 Thermoplastic Welding</b>	1	3	0	2	<b>WLD 251 Fabrication II</b>	1	6	0	3
Prerequisites: None					Prerequisites: WLD 151				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces the thermoplastic welding processes and materials identification. Topics include filler material selection, identification, joint design, and equipment setup with emphasis on bead types and applications. Upon completion, students should be able to perform fillet and groove welds using thermoplastic materials.					This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.				
<b>WLD 151 Fabrication I</b>	2	6	0	4	<b>WLD 261 Certification Practices</b>	1	3	0	2
Prerequisites: WLD 110, WLD 115, WLD 116, and WLD 131					Prerequisites: WLD 115, WLD 121 and WLD 131				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.					This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes.				
<b>WLD 215 SMAW (Stick) Pipe</b>	1	9	0	4	<b>WLD 265 Automated Welding/Cutting</b>	2	6	0	4
Prerequisites: WLD 115 or WLD 116					Prerequisites: WLD 110 and WLD 121				
Corequisites: None					Corequisites: None				
Effective Term: 1997*02					Effective Term: 1997*02				
This course covers the knowledge and skills that apply to					This course introduces automated welding equipment and processes. Topics include setup, programming, and operation of automated welding and cutting equipment. Upon completion, students should be able to set up, program, and operate automated welding and cutting equipment.				

Course Title	Hours Per Week Cl Lb Cn Cr	Course Title	Hours Per Week Cl Lb Cn Cr
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Definition of **bold** type and *bold and italic* type.

**Bold** typed prerequisites and corequisites are requirements at the local community college level. If a prerequisite and/or corequisite are regular font type, they are state mandated requirements and cannot be waived. All waivers must be in writing and approved by the appropriate academic dean.

*Bold and italic* type at the end of a course description indicate local community college level requirements.

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**Definition of \* and \*\* beside course numbers.**

The \* beside a course number indicates that the course has been approved for transfer through the Comprehensive Articulation Agreement.

The \*\* beside a course number indicates that the course is taught at another community college through a consortium agreement. This course will not be taught at Forsyth Tech.

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*Dean, Health Technologies Division*

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*Interim Dean, Arts and Sciences Division*

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A.A.S., *Mohawk Valley Community College*;  
B.S., *University of North Carolina at  
Greensboro*

**Pennell, Stephen G.**

Maintenance Specialist-HVAC Electrical  
Technician, Physical Plant Services

**Perez, Rafael**

Director, Customized Spanish  
B.A., *University of Puerto Rico*; M.A.,  
*University of Saint Thomas*

**Perry, Nell V.**

Coordinator, Small Business Center  
A.A.S., *Blue Ridge Community College*;  
B.S.A.S., *Winston-Salem State University*

**Petree, Robin N.**

Program Coordinator, Machining  
Technology  
Vocational Diploma, A.A.S., *Forsyth Technical  
Institute*

**Phelps, Susan Q.**

Director, Educational Partnerships  
B.A., *University of South Carolina*; M.A.,  
*Appalachian State University*; Ph.D.,  
*University of North Carolina at Greensboro*;  
*National Certified Counselor*

**Pinnix, R. Allen**

Instructor, Psychology  
B.A., M.A., *University of North Carolina at  
Greensboro*

**Plott, M. Joyce**

Instructor, Mathematics  
B.S., *Western Carolina University*; M.S.,  
*University of North Carolina at Chapel Hill*

**Polanis, Marcia E.**

Program Coordinator, Office Systems  
Technology  
A.A.S., *Forsyth Technical Community College*;  
B.A., *Indiana University of Pennsylvania*;  
M.A., *Appalachian State University*

**Pope, Bonnie G.**

Director, Associate Degree Nursing  
B.S., *University of North Carolina at  
Charlotte*; M.S., *University of North  
Carolina at Greensboro*

**Powell, Norma J.**

Housekeeper, Physical Plant Services

**Pratt, Thomas C.**

Grounds Maintenance Supervisor, Physical  
Plant Services  
B.S., *Virginia Polytechnic Institute and State  
University*

**Prevette, JoAnne P.**

Instructor, Associate Degree Nursing  
A.A.S., *Forsyth Technical Community College*;  
B.S.N., *Gardner-Webb University*

**Pritchard, Bernyce L.**

Instructor, Associate Degree Nursing  
R.N., *Riverside School of Nursing*; B.A.,  
*Salem College*; B.S.N., *Winston-Salem State  
University*; M.S.N., *University of North  
Carolina at Greensboro*

**Queen, Garland W.**

Department Chair, Electronics Technologies  
B.S.E.E., *University of North Carolina at  
Charlotte*; M.S.E.E., *Clemson University*

**Quesenberry, Amy E.**

Accounting Clerk/Secretary, Financial Services  
A.A.S., Forsyth Technical Community College

**Quesenberry, Scot R.**

Director, Physical Plant Services  
Vocational Diploma, Forsyth Technical Institute; CFC Universal License

**Ray, Deana K.**

Interim Director, Stokes County Operations  
A.A.S., Amarillo Community College; B.S., M.S., High Point University

**Read, Russel H.**

Executive Director, National Center for Biotechnology Workforce  
Education Diploma, McGill University; Institutional Administration Diploma, Concordia University; B.Sc., Loyola College; M.A., Concordia University

**Redfield, Kristin L.**

Instructor, English and Humanities  
B.A., M.A., University of North Carolina at Greensboro; Ed.D., Regent University

**Reeves, Derrick A.**

Instructor, Welding Technology  
A.A.S., Forsyth Technical Community College; Vocational Diploma, Forsyth Technical Institute; C.W.I.; C.W.E.

**Reid, Elizabeth H.**

Program Coordinator, Medical Transcription  
A.A.S., Forsyth Technical Community College; B.A., High Point University; Certified Medical Assistant

**Richards, Tanya R.**

Secretary, Certified Nursing Assistant and Health Education  
A.A.S., Forsyth Technical Community College

**Richardson, Colleen R.**

Counselor, Counseling  
B.A., Appalachian State University; M.A. Ed., Wake Forest University; National Certified Counselor, Licensed Professional Counselor

**Richardson, Margaret S.**

Secretary, Records/Registrar  
A.A.S., Forsyth Technical Community College

**Richardson, Maryanna B.**

Instructor, Speech/Communications  
B.A., M.A., University of North Carolina at Greensboro

**Richardson, Roger A.**

Program Coordinator, Horticulture Technology  
A.A.S., Forsyth Technical Community College; B.A., Syracuse University; M.A., Wake Forest University

**Ricks, Shaun A.**

Instructor, Human Services Technology  
B.A., M.Ed., The Pennsylvania State University

**Rinehardt, Sybil D.**

Interim Dean, Arts and Sciences Division  
B.A., M.A., University of North Carolina at Charlotte; Ed.S., Appalachian State University

**Robertson, Randall A.**

Director, Information Systems  
A.A.S., Forsyth Technical Community College

**Robinson, Sarah G.**

Clerk, West Campus Bookstore

**Rockson, Annette B.**

Housekeeper, Physical Plant Services

**Roth, Thomas M., Jr.**

Instructor, Electronics Engineering Technology  
B.S.E.E., Rice University

**Roundtree, Fredrick L.**

Instructor, English and Humanities  
B.A., Winston-Salem State University; M.A., North Carolina A&T State University

**Rudolph, Alice Adams**

Instructor, Life Sciences  
B.S., Guilford College; M.A., Appalachian State University

**Rushing, Julie P.**

Instructor, Dental Hygiene  
A.A.S., Guilford Technical Community College; B.S., Appalachian State University; Registered Dental Hygienist; Certified Dental Assistant

**Saddler, J. Gregory**

Building Maintenance, Assistant Supervisor  
Physical Plant Services  
Vocational Diploma, Forsyth Technical Community College

**Salandy, Andy B.**

Instructor, Life Sciences  
B.S., M.S., Appalachian State University

**Savey, Kelli N.**

Accounting Technician/Payables, Financial Services  
B.A., *University of North Carolina at Chapel Hill*

**Saylor, Annette L.**

Instructor, Dental Hygiene  
A.A.S., *Guilford Technical Community College*; B.S., *University of North Carolina at Greensboro*

**Sechrest, Joe S.**

Department Chair, Transportation Technology  
*Special Certification Training: Caterpillar Cummins Factory, Detroit Diesel, Ford Motor Company*

**Sequeira, Anna J.**

Instructor, Physical Sciences  
B.Sc., M.Sc., DHE, *Bombay University*; TEFL, *Royal Society of Arts in England*; M.S., *Radford University*; Ph.D., *Virginia Polytechnic Institute and State University*

**Sexton, Gloria L.**

Coordinator, Education and Employment Transitional Services  
B.A., *Saint Augustine College*; M.S., *North Carolina A&T State University*

**Shallua, Lucas D.**

Department Chair, Biotechnology  
B.S., M.S., D.Sc., *Sokoine University of Agriculture*

**Shanks, Lacy D.**

Housekeeper, Physical Plant Services

**Shepherd, J. Bruce**

Director, Records/Registrar  
B.S., M.A., *Appalachian State University*; Ed.D., *University of North Carolina at Greensboro*

**Shepherd, Thomas C.**

Instructor, Social Sciences  
B.A., *Winston-Salem State University*; M.A., *Atlanta University*

**Sheppard, Perry W.**

Department Chair, Respiratory Therapy  
A.A.S., *Forsyth Technical Community College*; B.S., *Gardner-Webb University*; M.Ed., *American InterContinental University*; Professional Credentials: RRT-NPS, RPFT, RCP

**Shields, Sheila B.**

Instructor, Psychology  
B.A., *Appalachian State University*; M.Ed., *Wake Forest University*

**Shirk, Louise R.**

Secretary, Emergency Services Programs

**Shirk, Robert D.**

Instructor, Psychology  
B.R.E., *Piedmont Bible College*; B.A., *Salem College*; M.S.H.E., Ed.S., *University of North Carolina at Greensboro*

**Shoaf, Donald C.**

Program Coordinator, Radiography  
A.A.S., *Forsyth Technical College*; A.B., *High Point College*; M.Ed., *University of North Carolina at Greensboro*; A.R.R.T.(R)

**Shumate, Edward G., Jr.**

Instructor, Automotive Systems Technology  
A.A.S., *Guilford Technical Community College*; Vocational Diploma, *Forsyth Technical Community College*

**Silverman, Cheri E.**

Coordinator, Program Development and Audit  
A.A.S., *Forsyth Technical Community College*

**Simpson, Donna L.**

Housekeeper, Physical Plant Services

**Sineath, Alice B.**

Department Chair, Accounting and Business Administration  
B.S.B.A., M.A., *Appalachian State University*; C.P.A., *State of North Carolina*

**Sineath, B. J.**

Director, Grady P. Swisher Center  
A.A., *Rockingham Community College*; B.S., *Appalachian State University*; M.Ed., Ed.D., *University of North Carolina at Greensboro*

**Smalls, Marsha N.**

Accounting Technician/Cashier, Financial Services  
B.S., *Winston-Salem State University*

**Smart, Robert M., Jr.**

Maintenance Specialist-Carpenter, Physical Plant Services

**Smith, Cindy B.**

Instructor, Computed Tomography  
A.A.S., *Forsyth Technical Community College*

**Smith, Elaine M.**

Secretary, Auxilliary Services and Bookstore  
A.A.S., *Middlesex County College*; B.S., *Kean University*; Secretarial Diploma, *Taylor Business Institute*

**Smith, Rodney T.**

Program Coordinator, Welding Technology  
Vocational Diploma, *Forsyth Technical Institute*; B.R.E., *Piedmont Bible College*; M.A., *Appalachian State University*

**Smith, Teresa P.**

Clinical Education Coordinator, Nuclear Medicine Technology  
A.A.S., *Forsyth Technical Institute*; B.S., *Greensboro College*; M.S., *North Carolina A&T State University*; C.N.M.T., A.R.R.T.(N)

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Instructor, Automotive Systems Technology  
A.A.S., *Surry Community College*; Automotive Systems Technology Master ASE Certified

**Sperber, Frank M.**

Maintenance Mechanic-Electrician's Assistant, Physical Plant Services  
Vocational Diploma, *Forsyth Technical Community College*

**Spillman, Sandra L.**

Housekeeper, Physical Plant Services

**Squire, Annette B.**

Admissions Processing Secretary,  
Admissions

**Stafford, Suzanne B.**

International Programs Officer, Grady P. Swisher Center  
B.A., *Old Dominion University*; M.A., *Virginia Polytechnic Institute and State University*; M.B.A., *University of California*

**Stainbrook, Eric J.**

Program Coordinator, English Composition  
B.A., *University of Pittsburgh at Bradford*; M.A., *Northwestern University*; Ph.D., *Indiana University of Pennsylvania*

**Stanley, Shannon T.**

Coordinator, Adult Literacy Curriculum and ABS/GED  
A.A.S., *Surry Community College*; B.S., M.B.A., *Gardner-Webb University*; Career Development Facilitator Certificate

**Stephens, Edward T.**

Programmer/Technician, Information Systems  
B.A., *Brigham-Young University*

**Stevens, Jesssica R.**

Instructor, Associate Degree Nursing  
B.S.N., *Winston-Salem State University*

**Stinson, Tamara L.**

Secretary, Small Business Center  
A.A.S., *Davidson County Community College*

**Stoltz, Herbert E.**

Instructor, Automotive Systems Technology  
A.A.S., *Forsyth Technical Community College*; Disc Brake School, *Automotive Tune-up School*, G.M. Training Center; Ford Motor Company Training; Mitchell On-Demand Systems, Mitchell Driveability Systems

**Stovall, Pamela H.**

Instructor, Information Systems  
B.S., *North Carolina State University*

**Stowe, Chrts L.**

Computer Services Technician, Information Systems  
A.A.S., *Forsyth Technical Community College*

**Stowers, Renee M.**

Secretary, Arts & Sciences Division  
A.A., *Northeast Oklahoma A&M College*; A.A.S., *Surry Community College*

**Suggs, Sandra W.**

Admissions Counselor, Admissions  
B.A., *Wingate College*

**Sutphin, Donald G.**

Department Chair, Integrated Manufacturing Technologies  
A.A.S., *Davidson County Community College*; B.E.T., *University of North Carolina at Charlotte*; Vocational Diploma, *Forsyth Technical Institute*

**Swaim, Cathy S.**

Staff Associate, Business Services  
A.A.S., *Mitchell College*

**Swain, Michael E.**

PC Technician, Information Systems  
A.A.S., *Forsyth Technical Community College*

**Swenson, Edward J.**

Instructor, Mathematics  
*B.S., United States Military Academy; M.A.,  
University of Washington; M.S., North  
Carolina A&T State University*

**Tatum, Bettie B.**

Facilities Operations/Telephone Technician,  
Physical Plant Services  
*A.A.S., Forsyth Technical Community College*

**Taylor, Deborah D.**

Program Coordinator, Computed  
Tomography and Magnetic Resonance  
Imaging  
*B.S., University of North Carolina at Chapel  
Hill; M.A.L.S., Wake Forest University;  
A.R.R.T.(R)(CT)(MR)*

**Teague, A. Scott**

Program Coordinator, Basic Law  
Enforcement Training (BLET)  
*B.S., University of North Carolina at  
Charlotte; M.A., Appalachian State University*

**Tennis, Heidi A.**

Department Chair, Physical Education  
*B.S., Grand Valley State College; M.A.,  
Western Michigan University*

**Thomas, Marie H.**

Lead Instructor, Associate Degree Nursing  
*B.S.N., Vanderbilt University; M.S.N.,  
University of North Carolina at Greensboro*

**Thurber, Barbara P.**

Accounting Technician/Receivables,  
Financial Services  
*A.A.S., Forsyth Technical Community College;  
B.S., High Point University*

**Todd, Martha H.**

Interim Packaging/Awards Specialist, Student  
Financial Services  
*A.A.S., Forsyth Technical Community College*

**Troop, Sherry S.**

Instructor, Associate Degree Nursing  
*B.S.N., M.S.N., University of North Carolina  
at Greensboro*

**Tuttle, Jacqueline M.**

Instructor, Life Sciences  
*B.S., High Point College*

**Tuttle, Jeffrey L.**

Program Coordinator, Business  
Administration/Banking and Finance  
*B.S., M.A., Appalachian State University*

**Tyson, Tommy J.**

Instructor, English and Reading  
*B.S., Winston-Salem State University; M.A.,  
Appalachian State University*

**Valenti, Veronica M.**

Coordinator, Adult Literacy Testing  
*B.S., Saint John's University, M.S., Rutgers,  
The State University of New Jersey*

**Vargas, Nancy H.**

Trainer, Health Occupations  
*B.S., Western Carolina University, B.S.N.,  
University of Alabama*

**Vernon, Carole S.**

Technician, Human Resources  
*A.A.S., Forsyth Technical Community College*

**Vidal, Pamela S.**

Secretary, Student Financial Services  
*A.A.S., Southwestern Virginia Community  
College*

**Waddell, Edwin B.**

Director, Student Activities  
*B.A., Mars Hill College; M.Div. Southwestern  
Technological Seminary*

**Walker, Mark D.**

Program Coordinator, Auto Body Repair  
Diploma, Forsyth Technical Community  
College

**Waller-Wood, Sandra R.**

Secretary, Public Safety  
*A.A.S., Forsyth Technical Community  
College*

**Walter, Gwendolyn C.**

Instructor, Early Childhood Education  
*B.S.H.E., M.Ed., University of North Carolina  
at Greensboro*

**Watson, Debra E.**

Secretary, Community and Economic  
Development Programs

**Watts, Ann B.**

Program Coordinator, Early Childhood  
Education  
*B.S., M.Ed., University of North Carolina at  
Greensboro*

**Weaver, Cindy D.**

Staff Associate, Student Development  
Services  
*A.A.S., Forsyth Technical Institute*

**Webb, Linda C.**

Service Center Specialist, Faculty/Staff  
Service Center  
B.A., Winston-Salem State University

**Weber, Kimberly D.**

Staff Assistant, Arts and Sciences Division  
A.A.S., Forsyth Technical Community College

**Wenner, Ellen J.**

Department Chair, Early Childhood and  
Human Services Technology  
B.S., M.S., Worcester State College

**West, Wilma W.**

Secretary, Physical Plant Services

**Weyrich, Sandra A.**

Receptionist/Secretary, Admissions  
B.B.A., Cleveland State University

**Whisenbunt, Jannette T.**

Department Chair, Dental Assisting/ Hygiene  
A.A.S., Central Piedmont Community  
College; B.S., Greensboro College; M.Ed.,  
Ph.D., University of North Carolina at  
Greensboro

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Receptionist/Information Specialist,  
Testing/Disability Services/ADA  
Microcomputing Certificate, Forsyth  
Technical Community College

**Whitaker, Gwen D.**

Records Technician, Records/Registrar  
A.A.S., Forsyth Technical Community College

**White, Linda H.**

Lead Instructor, Associate Degree Nursing  
B.S.N., University of Alabama; M.S.N.,  
Vanderbilt University

**Wiggins, Cynthia W.**

Clinical Education Coordinator, Respiratory  
Therapy  
A.A.S., Forsyth Technical Institute; B.S.,  
Gardner-Webb College

**Wilder, William B.**

Program Coordinator, Automotive Systems  
Technology/Race Car Performance  
A.A.S., Guilford Technical Community  
College; Vocational Diploma, Forsyth  
Technical Institute; ASE Certified; Electronic  
Engine Controls Specialist Certificate

**Wiles, Jerri F.**

Program Coordinator, Information Systems  
A.A.S., Forsyth Technical Community College;  
B.S., High Point University; M.B.A., Ed.S.,  
Appalachian State University

**Wilkins, Dwayne R.**

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Services

**Williams, Ann M.**

Department Chair, Mathematics  
B.A., St. Andrews College; M.A., University of  
North Carolina at Chapel Hill

**Williams, Leola B.**

Housekeeper, Physical Plant Services

**Williams, T. Michelle**

Instructor, English and Humanities  
B.A., Wake Forest University; M.A., University  
of North Carolina at Greensboro

**Williams, Shawna M.**

Marketing and Public Relations Specialist,  
Marketing and Public Relations  
A.A., Louisburg College; B.A., University of  
North Carolina at Greensboro

**Williams, Tracey M.**

Secretary, Community and Economic  
Development Programs  
A.A.S., Forsyth Technical Community College

**Wilson, Almana J.**

Instructor, Early Childhood Education  
B.S., Hampton University; M.A., University of  
Michigan

**Wilson, Van C.**

Vice President, Student Development  
Services  
B.A., M.P.A., Western Carolina University

**Wimbish, Janice D.**

Instructor, Practical Nursing  
B.S.N., Clemson University

**Wood, E. Lorraine**

Admission Counselor, Admissions  
B.S., North Carolina Central University

**Wood, Nelda M.**

Evening Switchboard Operator, Testing/  
Disability Services/ADA

**Wooten, Toni M.**

Secretary, Information Systems  
*A.A.S., Surry Community College*

**Worley, Ernestine D.**

Lead Instructor, Practical Nursing  
*B.S.N., Hampton University; M.Ed., Wake  
Forest University; M.S.N., University of North  
Carolina at Greensboro*

**Wright, Angelia T.**

Department Chair, Social and Behavioral  
Sciences  
*B.S., M.A., Appalachian State University*

**Yates, Janet L.**

Instructor, Mathematics  
*B.S., M.Ed., University of North Carolina at  
Greensboro*

**Yevin, G. Bernard**

Dean, Business Information Technologies  
Division  
*B.S., M.B.A., Eastern Illinois University*

**Yokeley, Richard C.**

Program Coordinator, Global Logistics  
Technology  
*B.S., High Point University*

**Young, Loren R.**

Admissions Processing Secretary, Admissions  
*A.A.S., Forsyth Technical Community College;  
B.A., Salem College*

**Young, Phygenia F.**

Program Coordinator, Teacher Assistant  
*B.S., Winston-Salem State University; M.S.,  
North Carolina A&T State University*

**Yurko, Linda W.**

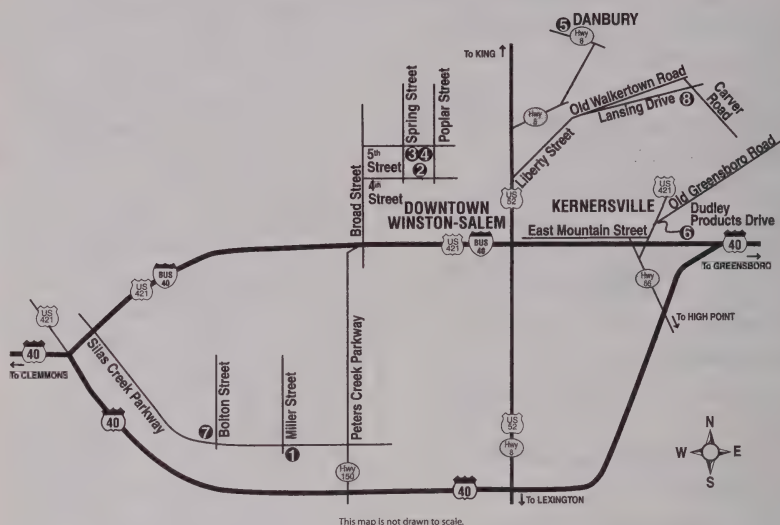
Director, Allied Health  
*B.S., Greensboro College; M.A., Wake Forest  
University; Certificate, Presbyterian School of  
Radiologic Technology; ARRT(R)(M)*

**Zink, Amy D.**

Instructor, Life Sciences  
*B.S., M.S., Georgia State University*

# Map of All Campus Locations

## Forsyth Technical Community College Campus & Center Locations



### 1 Main Campus

2100 Silas Creek Parkway  
Winston-Salem, N.C. 27103-5197  
(336) 723-0371

*(Mailing address for all locations. Please send correspondence to main campus for distribution.)*

### 2 4th Street Small Business Center

Chamber Building  
601 West 4th Street  
Winston-Salem, N.C.  
(336) 631-1320

### 3 5th Street Library Center

Forsyth County Public Library  
660 West 5th Street  
Winston-Salem, N.C.  
(336) 631-1325, (336) 631-1326

### 4 Forsyth Tech Hispanic Center

Forsyth County Public Library  
660 West 5th Street  
Winston-Salem, N.C.  
(336) 631-1325, (336) 631-1326  
*Se habla español.*

### 5 Stokes County Center

1012 Main Street  
Danbury, N.C.  
(336) 593-2482

### 6 Grady P. Swisher Center

1251 Dudley Products Drive  
Kernersville, N.C.  
(336) 734-7903

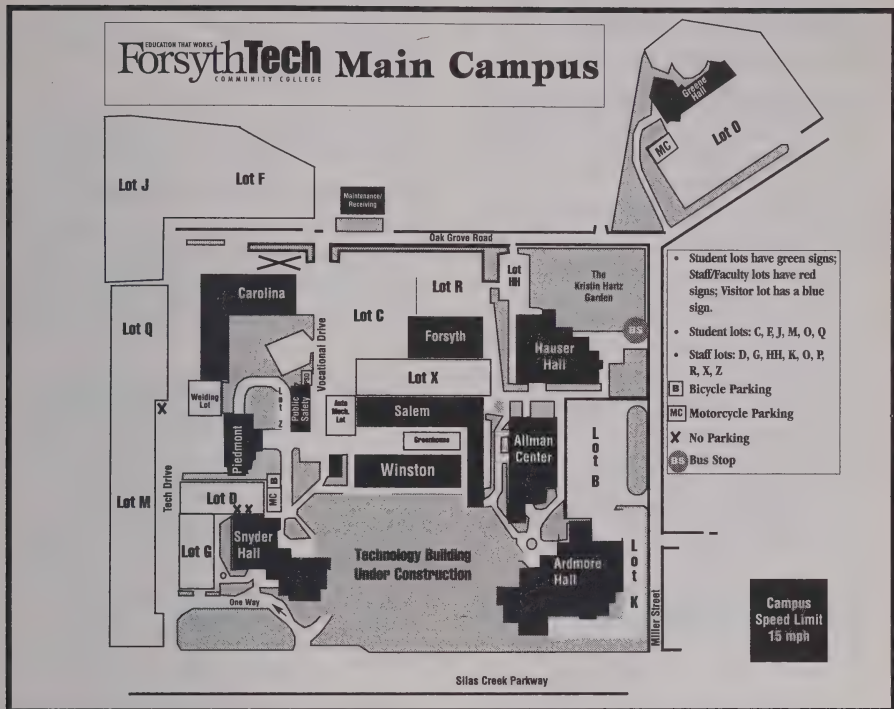
### 7 West Campus

1300 Bolton Street  
Winston-Salem, N.C.  
(336) 761-1002  
*Se habla español.*

### 8 Mazie S. Woodruff Center

4905 Lansing Drive  
Winston-Salem, N.C.  
(336) 734-7950

# Map of Main Campus



## Allman Center

- Admissions and Recruiting Office
- Arts and Sciences Division Office
- Business Office
- Cashier's Office
- Classrooms/Labs
- College Transfer Office
- Counseling and Career Services
- Development & Alumni Relations
- Disability Services Office
- Forsyth Tech Foundation
- Grants Office
- Human Resources Office
- Information Desk
- Information Systems Office
- Institutional Advancement Office
- Instructional Services Office
- James A. Rousseau II Minority Male Mentoring Program
- Marketing & Public Relations

## President's Office

- Purchasing Office
- Records/Registrar
- Student Activities\*
- Student Financial Services
- Testing Center

## Ardmore Hall

- Audiovisual Services
- Auditorium A & B
- Classrooms
- Directed Studies Center
- Distance Learning Center
- Learning Center
- Library

## Carolina Annex

- Environmental Services Office
- Public Safety Office

## Carolina Building

- Classrooms/Shops

## Forsyth Building

- Classrooms/Shops

## Greene Hall

- Classrooms/Labs
- Health Technologies Division Office

## Hauser Hall

- Business Information Technologies Division Office
- Cafeteria
- Classrooms/Labs
- Thomas H. Davis /TEC\* Center
- Shugart Women's Center at Forsyth Tech

## Maintenance/Receiving Building

- Physical Plant
- Shipping and Receiving

## Piedmont Building

- Classroom/Shops

## Salem Building

- Classrooms/Shops

## Snyder Hall

- Bookstore\*
- Classrooms/Labs
- Educational Partnerships
- Faculty/Staff Service Center
- Middle College Office
- Research and Assessment Office

## Technology Building (Under Construction)

- \* Proposed move for
- Bookstore
- Student Activities
- Thomas H. Davis /TEC

## Winston Building

- Classrooms/Shops
- Engineering Technologies Division Office

## Terms to Know

### Frequently used terms and their definitions

**Academic Advisor:** A person who approves the selection of courses for a student-chosen program of study and is usually a faculty member or counselor in Counseling and Career Services.

**Academic Standing:** Entering students must earn a grade point average (GPA) of 2.0 by the end of their first semester and maintain a GPA of 2.0 thereafter.

**Accreditation:** Various professional agencies appoint teams of evaluators who periodically study Forsyth Tech's programs and services to ensure they meet standards of quality and are relevant to the college's purpose.

**Adult High School:** A program that allows adults to complete high school courses and credits for an adult high school diploma.

**Associate in Applied Science:** A two-year technical degree that prepares students for the job market.

**Associate in Arts:** A two-year college transfer program that concentrates on humanities and social sciences for those planning to continue to a bachelor's degree program in a four-year institution.

**Associate in Science:** A two-year college transfer program that concentrates on mathematics and biological or physical sciences for those planning to continue to a bachelor's degree program in a four-year institution.

**Audit:** A course for which a student pays tuition and fees but does not receive credit. An **Audit Request Form** is available in Counseling and Career Services or from the appropriate division dean.

#### **Continuing Education Units (CEUs):**

Corporate & Continuing Education Division occupational extension courses are approved for continuing education units (CEUs). CEU credit is based upon the number of hours a course is scheduled to meet. One CEU is awarded for every ten hours, and any portion thereof, a person attends class. (For example, a course that meets for 22 hours awards 2.2 CEUs.)

**Certificate:** A program of study generally requiring one year or less of course work.

**Contact Hours:** The actual number of hours in class per week, per course.

**Corequisite:** A course taken at the same time as another course or prior to the course to be taken.

**Corporate & Continuing Education:** This division provides open enrollment and customized noncredit courses as well as adult high school, general education development (GED) and English as second language (ESL) programs for citizens who are 18 years old or older.

**Counselor:** A person who provides a student with personal, academic, vocational and career counseling.

**Credit Hours:** Every class is worth a value called a credit hour. Every degree, diploma and certificate program requires a student to take a certain number of credit hours.

**Credit Programs:** The program of courses required to receive a degree, diploma or certificate in a chosen program of study.

#### **Cumulative Grade Point Average (GPA):**

The average of a student's grades for all classes taken at Forsyth Tech. It is calculated by adding all earned quality points and dividing by the number of credit hours taken.

**Developmental Education:** This program offers a series of courses for preparation, remediation and academic guidance to improve a student's academic skills in order to be successful in a program of study.

**Diploma:** A program of study that usually requires two semesters plus one term or more of course work to complete. Courses are not designed to transfer to a four-year institution.

**Division:** An academic area within the college. Forsyth Tech has five divisions: Arts and Sciences, Business Information Technologies, Corporate & Continuing Education, Engineering Technologies and Health Technologies.

**Drop/Add:** The drop/add period is when students adjust their schedules by dropping and adding courses they registered for. The drop/add period is limited and is indicated on the college calendar.

**Electives/Unrestricted Electives:** A course that is not specifically named in a student's curriculum but is required to graduate. Students should check with their academic advisor before choosing an elective.

**Financial Aid:** Grants (money given to students through the federal and state government), scholarships, work programs and student loans available to qualified students to help meet educational expenses.

**Full-Time Student:** A student who is taking at least 12 credit hours fall and spring semester, or nine hours summer term.

**GED (General Education Development):** Persons who have not completed high school may choose to take a series of tests that correspond to most high school curricula to determine if they qualify for a high school equivalency diploma.

**Independent Study:** A credit course, allowed only in special circumstances, in which a student works individually with a faculty member.

**Live Project:** A course that offers hands-on experience in the workplace, usually in the Engineering Technologies Division.

**Part-Time Student:** A student who is registered for 11 credit hours or fewer.

**Plagiarize:** Using ideas or words of another as your own without crediting the source. Plagiarism is a form of cheating.

**Practicum:** A course that offers hands-on experience in the workplace.

**Prerequisites:** A course taken prior to another course. Preliminary skills, knowledge or other courses that are required before a student enrolls in a particular course. Prerequisites are listed by course and course description in the catalog. Descriptions are alphabetized by course prefix.

**Probation:** Students are placed on academic probation when their grade point average (GPA) falls below 2.0.

**Proficiency Test:** Students may, under certain conditions, take an exam and receive credit for a course without having taken the course. A student will not receive a grade, just the credit hours.

**Special Credit Student:** A student who is taking one or more curriculum credit course but is not enrolled in a specific curriculum.

**Student Activity Fee:** The fee a student pays every semester that covers social activities for all students, part of graduation expenses, the student newspaper, *Technically Speaking*, and the *Student Handbook*.

**Student Government Association (SGA):** The Student Government Association is composed of all current Forsyth Tech students and is served by the Student Government Council (SGC). A student can get involved in SGA activities by contacting the student activities director, Student Activities Office (1st floor), Allman Center, Main Campus.

**Student Government Council (SGC):** The SGC consists of the student government officers, Alpha Mu Beta fraternity members and other SGC representatives.

**Technology Fee:** All curriculum students are required to pay a technology fee each semester/term. The fee is \$10 for students enrolled in 1-11 credit hours and \$16 for students enrolled in 12 or more credit hours.

**Transcript:** A printed record of every course taken at Forsyth Tech and the grades a student has received. An official transcript is stamped with the seal of the college. Transcripts are obtained at a cost of \$2 from the Records Office (1<sup>st</sup> Floor), Allman Center, Main Campus.

**Work Study:** A federally-funded program through which qualified students, primarily from low-income families, are given part-time employment as a part of their financial aid award.

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# CAMPUS AND CENTER LOCATIONS

## Main Campus

2100 Silas Creek Parkway

Winston-Salem, N.C. 27103-5197

(336) 723-0371

*(Mailing address for all Forsyth County locations)*

## 4<sup>th</sup> Street Small Business Center

Chamber Building

601 West 4<sup>th</sup> Street

Winston-Salem, N.C.

(336) 631-1320

## 5<sup>th</sup> Street Library Center

Forsyth County Public Library

660 West 5<sup>th</sup> Street

Winston-Salem, N.C.

(336) 631-1325

## Forsyth Tech Hispanic Center

Forsyth County Public Library

660 West 5<sup>th</sup> Street

Winston-Salem, N.C.

(336) 631-1326

*Se habla español.*

## Stokes County Center

1012 Main Street

Danbury, N.C.

(336) 593-2482

## Grady P. Swisher Center

1251 Dudley Products Drive

Kernersville, N.C.

(336) 734-7903

## West Campus

1300 Bolton Street

Winston-Salem, N.C.

(336) 761-1002

## Mazie S. Woodruff Center

4905 Lansing Drive

Winston-Salem, N.C.

(336) 734-7950